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ABSTRACT

To facilitate curriculum improvement and career counseling in the field of agriculture, a survey was conducted to determine the marketability, or job placement, of the 1977 agriculture graduates from both two-year and four-year colleges in Illinois. A questionnaire was sent to the 1,832 graduates and was returned by 665. In response to a separate questionnaire, the thirty-nine colleges offering agriculture courses supplied employment data on all of their graduates. Besides providing demographic information on the graduates, the two surveys revealed that (1) while two-year graduates prefer to specialize in production agriculture, four-year graduates choose more diverse areas of specialization; (2) both types of graduates are, for the majority, able to find salaried employment; (3) a close correlation exists between academic field of study and subsequent employment; (4) salaries in the agriculture field appear to be higher than those in other fields; and (5) a need exists for more graduates to pursue careers in agriculture education, agribusiness, and production agriculture. The survey data was then compared with the results of previous, similar studies for 1975 and 1976 graduates, and it was found that more females are entering agriculture; fewer agriculture majors have a farm background; graduates are increasingly entering agriculture related and non-agriculture areas; and despite limited employment opportunities in certain fields, students continue to choose them as majors. (ELG)

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# A MARKETABILITY STUDY OF GRADUATES OF ILLINOIS AGRICULTURE PROGRAMS OF HIGHER EDUCATION FOR THE PURPOSES OF: STUDENT AND PARENT ADVISEMENT, PROGRAM PLANNING, AND PROGRAM CHANGING

[PHASE III]

August, 1978

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TABLE OF CONTENTS


| | Page |
|---|---|
| LIST OF TABLES | iv |
| APPENDIX | viii |
| ACKNOWLEDGEMENTS | ix |
| Chapter | |
| I. SUMMARY | 1 |
| II. INTRODUCTION | 9 |
| Statement of the Problem | 10 |
| Objectives | 11 |
| III. PROCEDURES | 12 |
| Proposal Development | 12 |
| Development of the Questionnaires | 12 |
| Support and Cooperation | 12 |
| Data Collection | 14 |
| Data from the Graduates | 14 |
| Data from the Colleges | 14 |
| General Observations | 15 |
| Data Compilation | 16 |
| IV. PRESENTATION OF THE DATA | 17 |
| Data from Individual Illinois Agriculture Colleges, 1977 | 17 |
| Data from Individual Illinois Agriculture Graduates, 1977 | 30 |
| Data, by Field of Study, from Individual Illinois Agriculture Graduates, 1977 | 44 |

LIST OF TABLES


| Table | | Page |
|---|---|---|
| 1. | Numbers and Types of Colleges Offering Higher Education in Agriculture, Illinois, 1977. . . . . | 18 |
| 2. | Agriculture Graduates, All Illinois Colleges Offering Agriculture Courses, 1977. . . . . | 19 |
| 3. | Placement of 736 Agriculture Graduates, 25 Illinois Two-Year Colleges, 1977 . . . . . | 20 |
| 4. | Beginning Monthly Salaries, 1977, and Expected Beginning Monthly Salaries, 1978, 736 Illinois Two-Year College Agriculture Graduates, 1977. . . . . | 21 |
| 5. | Placement of Specialized Illinois Two-Year Agriculture Graduates, In Order, as Reported by the 25 Two-Year Colleges, and Surplus Conditions, 1977. . . . . | 21 |
| 6. | Projected Demand for 1978 Agriculture Graduates Relative to 1977, Illinois Two-Year Colleges, 1977. . . . | 22 |
| 7. | Placement of 887 B.S. Agriculture Graduates, All Four-Year Illinois Colleges, 1977 . . . . . | 23 |
| 8. | Beginning Average Monthly Salary, 887 B.S. Agriculture Graduates, 1977, and Projected Beginning Monthly Salaries, 1978. . . . . | 24 |
| 9. | Placement of Specialized B.S. Illinois Agriculture Graduates, 1977, In Order, As Reported by the Four Four-Year Colleges, Surplus Conditions, 1977, and the Projected Situation, 1978, as of 1977 . . . . . | 25 |
| 10. | Placement of 172 M.S. and 37 Ph.D. Agriculture Graduates, Illinois Agriculture Colleges, 1977. . . . . | 26 |
| 11. | Beginning Monthly Salaries of 172 M.S. and 37 Ph.D. Agriculture Graduates, 1977, Illinois Agriculture Colleges, and Expected Salaries, 1978, as of 1977 . . . . | 27 |
| 12. | Placement of and Average Beginning Monthly Salaries, 1,832 Agriculture Graduates, Illinois Two-Year and Four-Year Agriculture Colleges, 1977, and Projected Monthly Salaries, 1978, as of 1977. . . . . | 28 |
| 13. | Age, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665) . . . . . | 31 |

Table | Page

14. Sex and Background, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665). . . . . 31

15. 4-H, Agriculture Occupations Courses, FFA and Other Vocational Organization Experiences in High School, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665) . . . . . 32

16. Years of Agriculture Occupations Courses in High School, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665) . . . . . 33

17. Number of Graduates, Two-Year and Four-Year Colleges, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665) . . . . . 34

18. Area of Specialization, Reporting Two-Year Illinois Agriculture Graduates, 1977 (N=300) . . . . . 35

19. Type of Degree Earned, Reporting Two-Year Illinois Agriculture Graduates, 1977 (N=300) . . . . . 36

20. Area of Specialization, Reporting Four-Year Illinois Agriculture Graduates, 1977 (N=365) . . . . . 36

21. Employment Status, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665) . . . . . 37

22. Type of Employment, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=549) . . . . . 38

23. Type of Employer, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547) . . . . . 39

24. Relationship of Employment to College Major, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547). . . . . 40

25. Annual Earnings from First Major Employment, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547). . . . . 41

26. Secondary Employment and Earnings, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=541). . . . . 42

Table | Page

27. Student Evaluation of Higher Education Received Relative to Achieving Present Employment Status and Potential, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=546). . . . . 43

28. Sex and Background, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300) . . . . . 44

29. 4-H, High School Agriculture, and FFA Experience, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300). . . . . 46

30. Types of Degrees, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300) . . . . . 47

31. Employment Status, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300) . . . . . 48

32. Type of Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241) . . . . . 49

33. Type of Employer, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240) . . . . . 50

34. Evaluation by Graduates of Relationship Between Employment and Field of Study Taken, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241) . . . . . 51

35. Annual Income, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241) . . . . . 52

36. Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240). . . . . 53

37. Annual Earnings of Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=66). . . . . 54

Table | Page

38. Student Evaluation of Agriculture Program, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240) . . . . . 55

39. Sex and Background, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365) . . . . . 56

40. 4-H, High School Agriculture, and FFA Experience, by Field of Study, Reporting Illinois Four-Year Agriculture Graduates, 1977 (N=365). . . . . 57

41. Degrees Granted, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365) . . . . . 59

42. Employment Status, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365) . . . . . 60

43. Type of Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=308) . . . . . 61

44. Type of Employer, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=306) . . . . . 63

45. Evaluation by Graduates of Relationship Between Employment and Field of Study Taken, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=306). . . . . 64

46. Annual Income, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=305). . . . 65

47. Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365). . . . . 66

48. Annual Earnings of the Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=66) . . . . 67

49. Student Evaluation of Agriculture Programs, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=305). . . . . 68

## APPENDIX

Page

A. One-Page Questionnaire that was Completed by Illinois Agriculture College Personnel for Their Graduates as a Whole, 1977 . . . . . 70

B. Three-Page Questionnaire that was Completed by Individual Graduates, Illinois Agriculture Colleges, 1977 . . . . . 72

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## CHAPTER I

## SUMMARY

All Illinois agriculture colleges having agriculture graduates co-operated in a study to show the marketability, or job placement, of their two-year and four-year graduates of 1975. A 59-page report on the marketability of these graduates was published in August, 1976. Recognizing the value of a longitudinal study in identifying trends of employment, and to give those planning expanded programs and modifications dependable data on which to base their planning, the study was continued for the Illinois agriculture graduates of 1976. A 68-page report, very similar in format, was published in August, 1977 on the marketability of the Illinois agriculture graduates of 1976.

This report shows the marketability, or job placement, of the two-year and four-year agriculture graduates from all Illinois colleges, 1977. Although independent of the reports on the 1975 and 1976 graduates, the same format has been used. The format, along with the data presented in tables, similar in style and sequence to the reports on the 1975 and 1976 graduates, should make employer needs and employment trends more evident. At the same time, this report relative to the 1977 graduates, may be used without reference to the 1975 or 1976 reports. The three reports together may be used as a data base covering the three-year period of 1975, 1976, and 1977.

The objectives of this study were:

1. To obtain annual records on the first full-time career positions obtained by all agriculture graduates from the two-year and four-year Illinois education institutions offering degrees in agriculture.

2. To assemble data in a manner that would show the marketability of graduates from the various professional agriculture programs for each of the given years.

3. To make the data available annually to high schools, two-year colleges, and four year colleges offering agriculture for:

a. Advisement of students and parents relative to a career in agriculture.

b. Curriculum building and up-dating.

These objectives, relative to the Illinois agriculture graduates of 1977, have been achieved. Also, the instruments and procedures for data collection have been developed and tested for three years. Some desirable modifications in the questionnaires have been made and experience in use has been attained. The resulting data, through time, will provide a sound historical base from which counselors, students, parents, and college planners may make decisions relative to agriculture programs and careers. The data may also be used by agriculture planners to show the importance of higher education in agriculture to non-agriculture college administrators, taxpayers, and others unfamiliar with education in agriculture.

To obtain the data, two questionnaires were used: (1) one by each agriculture graduate of 1977, and (2) one by an agriculture person from each of the Illinois agriculture colleges. Agriculture graduates from almost 100 percent of the Illinois colleges completed questionnaires, and faculty personnel from 100 percent of the agriculture colleges having graduates provided data on their agriculture graduates. All data presented in this study were reported by the graduate or the college. Cooperation and support in obtaining data was provided by the action of the Illinois Articulation Conference, a six-man advisory committee to the project appointed from members of the Conference, and the Illinois college agriculture teachers.

In 1977, there were 39 Illinois colleges offering courses in agriculture. Thirty-five of these were two-year colleges, with 25 having agriculture graduates

in 1977. There were four four-year colleges. All four had B.S. graduates, two also had M.S. graduates, and one of the latter two had Ph.D. graduates.

There were 1,832 agriculture graduates in 1977, 736 from the two-year and 1,096 from the four-year agriculture colleges. There were 887 B.S., 172 M.S., and 37 Ph.D. graduates. There were more graduates in 1977 than in the two previous years.

Most of these graduates were 20 to 22 years of age, typical of the three-year study period. About 86 percent of the two-year and four-year graduates were male and 14 percent were female. During the three-year study period, the percentage of female graduates has steadily increased.

The two-year graduates came primarily from rural and small town areas (88.3 percent). Of the four-year graduates, 52.6 percent came from rural areas, 24.1 percent from small towns, and 23.3 percent from urban areas. During the three-year study period, the percentage of rural graduates has steadily decreased, and the percentage of graduates from small towns and urbans areas has steadily increased.

More than one-half (51.7 percent) of the two-year graduates had 4-H experience, about two-thirds (65.3 percent) had agriculture courses in high school, and 57 percent had FFA experience. Over one-third (38.3 percent) of the two-year graduates had other vocational organization experience. Less than one-half (44.9 percent) of the four-year graduates had 4-H experience, even less (39.7 percent) had agriculture courses in high school, 38.1 percent had FFA experience, and about one-fourth (24.4 percent) had other vocational organization experience. During the three-year study period, the percentage of agriculture graduates having 4-H, high school agriculture, and FFA experience has steadily declined. The percentage of Illinois agriculture graduates with four years of high school agriculture has declined from 47 percent in 1975 to 29 percent in 1977.

Production agriculture was the area of specialization apparently preferred by the two-year graduates. More than one-third (35.7 percent) graduated from this program. Ornamental horticulture followed with 18.7 percent, with agriculture supply and agriculture mechanics at 14.7 and 14 percent respectively. During the three-year study period, the area of agriculture production has always produced the most two-year graduates. However, the percentage of graduates from ornamental horticulture has increased 2.43 times from 1975 through 1977. The percentage of total two-year graduates of production, supply, and mechanics has decreased.

There was much diversity among the four-year graduates. Each of the following fields provided from 10.4 to 16.4 percent of the graduates: general agriculture, natural resources, animal agriculture, agribusiness, and agricultural science. During the three-year study period, the areas of general agriculture and plant agriculture have shown increases in the percentage of total four-year graduates. Agriculture science and agriculture economics have shown decreases. The percentage of agribusiness graduates increased in 1976 over 1975, but the percentage declined in 1977 from that of 1976.

Upon graduation, almost two-thirds (65.3 percent) of the two-year graduates entered farming as "operators," "partners," or "salaried," and 18.7 continued their education. Farming, farm supply, and service provided employment for over 65 percent of the two-year graduates.

Salaried positions were accepted by more than one-half (55.1 percent) of the four-year graduates. Over one-half (54.6 percent) of these positions was in agribusiness or agriculture related, while 26 percent were engaged in farming. As with the two-year graduates, farming and farm supply provided employment for many of the graduates. "Other" types of employment provided positions for more than one-fourth of both two-year and four-year graduates.

During the three-year study period, type of employer data has varied with little indication of any trends. However, farming has always absorbed many agriculture graduates, and more entered "other" in 1976 and 1977 than in 1975.

Of the 1,832 Illinois agriculture graduates of 1977, more than one-third (39.7 percent) went into farming, and almost one-fifth (17.7 percent) went into supply and services. A large number (28.3 percent) went into "other" types of employment.

The majority (61 percent) of all agriculture graduates reported a "close" to "very close" relationship between their present employment and field of study pursued in college. However, more agriculture graduates of 1977 reported employment not related to their college major than did the graduates of both 1975 and 1976.

The average monthly salary for the two-year graduates was $753, for the B.S. graduates $910, for the M.S. graduates $1,135, and for the Ph.D. graduates, $1,597. All Ph.D graduates were reported as being placed, and all but two percent of the M.S. graduates were placed. The average beginning salaries for all are projected to be higher in 1978.

Annual earnings of the two-year graduates of agriculture production, agriculture supply and services, and agriculture mechanics appear to be higher than those of the other areas. Annual earnings of the four-year graduates of education, agribusiness, and agriculture science appear to be somewhat higher than those of other fields. Many of the graduates also had secondary employment, some with substantial earnings.

In 1977, as in 1975 and 1976, the majority (59.1 percent) of the agriculture graduates evaluated the total program received as "above average" to superior. Only 8.3 percent evaluated the total program received as "below average" or "inadequate."

On the basis of numbers of agriculture graduates placed in various areas, the greatest areas of need appear to be the broad area of agribusiness and the area of production agriculture (farming). At least one area (agriculture education) did not have enough graduates to meet the needs for high school teachers in Illinois. Also, greater needs in these broad areas were concomitant with greater support needs in other areas: agriculture education, agriculture mechanics, plant and animal agriculture, agriculture science, natural science, and various combinations of these areas with related agriculture areas, as well as non-agriculture areas.

Illinois colleges are providing educational opportunities for young men and women interested in agriculture as a career. Both specialized and general areas of agriculture education are offered. Follow-up data of occupational program graduates indicate that the training received is applicable for a cluster of occupations, as well as for the specific occupation for which the student was trained. Guidance counselors at both high schools and colleges should be well aware of this situation relative to agriculture.

The following recommendations appear to be warranted from the analysis of the data provided by this study. The data should prove to be helpful to decision-makers in:

1. Resource Allocation: With ever-increasing competition for funds for education, those people responsible for allocating available funds should make decisions on the basis of valid data to make optimum use of available funds.

2. Curriculum Planning: Planners of programs should provide appropriate courses and programs in career education, commensurate with societal needs, to enhance the marketability of graduates.

3. College Administration: Final decisions by college administrators should be based on valid data reflecting actual needs, economy, and efficiency.

4. Parents and Students: Both parents and students make sacrifices for students to obtain education for a career. Factual data should be available upon which both may make decisions relative to occupational opportunities.

5. College Follow-up: Colleges should have a continuing follow-up and evaluation program in all training areas. The rapid increase in technology and changing societal needs mandates that constant evaluation is necessary to assure that the occupational programs are directly related to post-graduation employment. The necessary data for optimum decisions by all concerned can be available only through the cooperation of college personnel with a qualified researcher(s). As a result, college personnel should encourage, support, and cooperate in research that will provide data upon which decisions of optimum value can be made.

Although the data from three years of study did not identify many significant trends, there were some differences in the data that may be mentioned. More females entered agriculture. More agriculture majors came from small-town and urban areas. Fewer agriculture graduates have a farm background, 4-H experience, high school agriculture courses, FFA experience, or other vocational organization experience. About one-third of the four-year graduates originally graduated from a two-year college. Production agriculture is still a very popular major, and placement and salaries of production agriculture graduates are commendable. The number of graduates entering farming decreased, and those entering agriculture related and non-agriculture areas increased. The number of graduates entering "other" types of employment (types not fitting into the specialized areas listed on the questionnaire) increased. Annual earnings of graduates were higher, even though fewer indicated secondary employment and earnings. There were some fields of study where limited employment opportunities existed, but such conditions apparently did not discourage many students from majoring in these fields.

The Illinois agriculture colleges are meeting a great need and providing a great service to all people of Illinois and the United States. The education of those directly engaged in agriculture will affect the economy and standard of living of all people of Illinois, the United States, and the world. Concurrently, and of much importance, these colleges are preparing young men and women, the majority from the rural and small-town areas, for careers that meet the needs of the labor market. Otherwise, these young people, many already having valuable agriculture experience, might be lost to agriculture. However, there were some opportunities for young people without the traditional farm background.

Graduates of the Illinois agriculture colleges were marketable in 1977. There was a need for them as shown by actual placement. This need exists in agriculture areas, and apparently in some other areas, since many agriculture graduates were placed in non-agriculture or "other" types of positions.

# CHAPTER II

## INTRODUCTION

Most people, whether working in agriculture or elsewhere, are aware that agricultural technology has been constantly changing for many years. New production practices, resulting from reliable research and teaching, have become more widely accepted by farmers. For this to have taken place, farmers have had to become better educated. To improve their productive capacities, farmers have demanded more and more inputs--larger and better machinery, more fertilizers, more insecticides, more herbicides, more credit, better marketing facilities, and the like. The many suppliers of these agriculture inputs, and the many distributors of the resulting agriculture outputs, have also had to become better educated in order to meet these demands.

Higher education and research in agriculture have made beneficial changes possible. Agricultural production in nations that have not provided such education and research is far behind that of the United States. Many nations of the world are looking at the educational system of the United States as a model to improve their own agricultural production.

Changes in agricultural technology will continue. Ever-increasing demands for food and fiber by the world population will result in the need for more education of the suppliers of agricultural inputs, the farmers, and the distributors of agricultural products.

## Statement of the Problem

With ever-changing agricultural technology and the resulting types of jobs available, educational institutions offering higher education in agriculture must continuously make curriculum changes and additions. For the most part, they have done an excellent job of this in the past. Formerly, however, the primary need was for more and more researchers and educators. This need still exists, but it is now being met to a greater extent than in the past. Today, great needs exist in the broad areas of supply, production, distribution, and the teaching of the necessary technology for success in these areas. Presently, these needs are more visible than at any time in the past, and there is much demand by employers for college graduates in these areas.

When educational institutions make curriculum changes and additions to meet the needs of agriculture, there is often a lack of factual data on which to make changes that will provide optimum returns. For optimum returns, a need for changes or additions must exist. This need must be great enough to assure employment and the opportunity for professional advancement for those students who obtain the necessary education and experience to meet the need.

When changes are proposed, school administrators, and other reviewing agencies, must make a decision on whether or not to support the changes. Some decisions may have been made without adequate knowledge of the need. The planning of new programs, and the revision of existing programs, should be based on the best knowledge possible, relative to the agricultural technology involved and the types of jobs available or likely to be available, for graduates of this technology.

## Objectives

The overall objective of this study is to give the higher education planners, and those concerned with placement of agriculture graduates, a sound annual basis for counseling and advising students about job or career opportunities in the various areas of agriculture. One significant outcome of this study will be the identification of historical trends of employment that will provide those planning expanded programs and modifications sound data and direction on which to base their planning.

A secondary but important outcome of gathering this data for agriculture could be that it has the potential to serve as a prototype for gathering employment data for other career education fields. As the techniques and cooperative methods of obtaining the necessary data are developed, they could be applied to other fields.

The principle objectives of this study are:

1. To obtain annual records of the first full-time career positions obtained by all agriculture graduates from the two-year and four-year Illinois education institutions offering a degree in agriculture.

2. To assemble data in a manner that will indicate the marketability of graduates from the various professional agricultural programs for the target year.

3. To make data available annually to high schools, two-year colleges, and four-year colleges offering agriculture for:

    a. Advisement of students and parents relative to a career in agriculture.

    b. Curriculum building and up-dating.

# CHAPTER III

# PROCEDURES

## Proposal Development

The proposal for this study was developed on the assumption that the placement of each years' Illinois agriculture graduates would indicate the degree of marketability of agriculture graduates. Also, the type of employment would indicate the greatest market area for agriculture graduates with specialized training such as production agriculture, agribusiness, teaching, and the like.

## Development of Questionnaire

To obtain the necessary information annually on each of the agriculture graduates from the Illinois two-year and four-year agriculture colleges, a three-page questionnaire for each graduate to complete was developed (Appendix B). A similar questionnaire was used by the Illinois agriculture graduates of 1975. It was modified slightly for use by the graduates of 1976. There were no modifications for use by the graduates of 1977.

## Support and Cooperation

In order to encourage each agriculture graduate to complete the three-page questionnaire, it was assumed each individual Illinois college could do a better job than the project director could do alone. This resulted in the need to request continued support and cooperation from the Illinois colleges offering agriculture.

In April, 1975, the project director presented the proposal at the Annual Meeting of the Illinois Articulation Conference. This organization was founded over 20 years ago. It is made up of representatives from all Illinois agriculture colleges. Approximately 60 Illinois college teachers of agriculture attend the annual meeting. The primary purposes of the organization are to articulate agriculture courses, to develop standard introductory agriculture curricula for Illinois, and to discuss and offer solutions to current curricular problems.

After the proposal was presented, the membership at the Conference passed a resolution in the form of a motion "to support and cooperate in the study--support and cooperation meaning to provide the necessary data to make the study a success." In addition, the Chairman of the Conference appointed a six-man committee, four members from the two-year colleges and two from the four-year colleges, to help the project director in the final development of the study. This committee was later termed an Advisory Council and has provided much necessary input and support for the study. The support and cooperation given by the members of the Conference, the Advisory Council, and the agriculture teachers at each of the Illinois colleges has been necessary in order to obtain the data for this study.

By the same procedures, support and cooperation was continued in 1976, 1977, and again, for 1978. Additional support and cooperation has come from the Illinois Association of Community College Agriculture Instructors.

## Data Collection

Data from graduates: In late summer, 1975, the project director, with the help of the advisory council, finalized a three-page questionnaire to be completed by each 1975 Illinois agriculture graduate. Procedures and addresses for communicating with each of the Illinois two-year and four-year Illinois colleges offering agriculture courses had previously been developed. Operating procedures for the project director to obtain actual data by use of the three-page questionnaire were as follows:

1. The project director supplied a designated person from each Illinois agriculture college with an adequate number of questionnaires for each agriculture graduate to complete one.

2. This person from each college mailed one questionnaire to each individual graduate with a covering letter explaining the project, requesting cooperation in providing data, and instructing each graduate to return the completed questionnaire to him.

3. Follow-up letters, with another questionnaire and instructions, were often sent to non-responders of the first mailing.

4. When the person from each college received the completed questionnaires, they were forwarded individually or as a group to the project director.

These procedures were very satisfactory and were also used to obtain the data from the graduates of 1976 and 1977.

Data from Colleges: By late Fall, 1975, it became obvious that the agriculture graduates of 1975 were not going to complete and return as many completed questionnaires as desired. As a result, another source

of data was sought. The project director, with the help of the advisory council, developed a one-page questionnaire to be completed by some designated agriculture person from each of the Illinois two-year and four-year colleges offering courses in agriculture (Appendix A). This one-page questionnaire was adapted from one in use by the 12 North Central State Universities. Data were obtained from the records that each college has on its graduates.

Operating procedures for the project director to obtain actual data by use of the one-page questionnaire were as follows:

1. The project director supplied one person from each Illinois agriculture college a one-page questionnaire.

2. This college contact person completed the questionnaire from records and other information available on all their agriculture graduates of 1975 as a whole.

3. This contact person returned the questionnaire to the project director.

All two-year and four-year Illinois agricultural colleges provided the necessary data requested on this one-page questionnaire.

These procedures, like those relative to the three-page questionnaire, were very satisfactory, and were also used for the graduates of 1976 and 1977.

General Observations: After collecting the data for three separate years (1975, 1976, and 1977), it appears there are two optimum times to contact both the colleges and the graduates: (1) In late summer after May or June graduation, and (2) In January or February after May or June graduation.

In all three years of this study, approximately 70 percent of the colleges responded by late summer to the first mailings by the project director. Regardless of further attempts, little of the remaining data was obtained until attempts in January or February.

Various reasons have been given for slow responses. Possibly the most frequent given was that the graduates were not returning the three-page questionnaires. This is possibly a result of the graduates not becoming employed for up to six months after graduation. Another was that the data would be unfavorable to their individual programs. The latter has been greatly overcome by assurance from the project director that no single two-year college would be identifiable in any future reports. No two-year college was identifiable in the previous report, and none will be in any following report.

Regardless of some slow responses, the overall support and cooperation by all Illinois agriculture college personnel was excellent. For the three-page questionnaire, nearly 100 percent of the colleges having graduates provided support and cooperation. For the one-page questionnaire, support and cooperation was 100 percent from colleges having graduates.

Data Compilation: As the questionnaires were returned to the project director, the data were placed on opscan sheets and later transferred to a single data card for each graduate. All computations of data were by the Illinois State University Computer Service.

# CHAPTER IV

# PRESENTATION OF DATA

Data from the individual Illinois agricultural colleges, 1977, (one-page questionnaire--Appendix A) have been presented in Tables 1 through 12, and the data from the Illinois agriculture graduates, 1977, (three-page questionnaire--Appendix B), in Tables 13 through 49. Data from the colleges have been presented first as they establish early the number of Illinois agriculture colleges offering agriculture, number of graduates, and other data not available from the individual graduate questionnaire.

This type of data was collected and published in two separate publications relative to the Illinois agriculture graduates of 1975 and 1976. The same format for presentation of data has been followed in this publication. The subject of each table heading, as well as the order of presentation of tables, is also the same.

At the end of the discussion of most tables in this publication, a brief comparison has been made of the 1977 data to the data of 1975 and 1976.

## Data from Individual Illinois Agriculture Colleges, 1977

In 1977, 39 Illinois colleges offered agriculture courses, agriculture programs, and/or agriculture degrees (Table 1). Of these 39 colleges, 35 were two-year colleges, and four were four-year colleges offering agriculture degrees. All of the four-year colleges had graduates in 1977. Twenty-five of the 35 two-year colleges had agriculture graduates. Ten of the two-year colleges that offered agriculture courses had no agriculture graduates for two primary reasons: (1) Some were not struc-

tured to offer a degree, and (2) a few had not been in operation long enough. With a few others, an important function of the total program was to serve the needs of the community by offering specialized courses to part-time students rather than offerings leading only to a two-year degree. At some colleges, student enrollment has not been sufficient for a degree program to become operational.

There has been only one change during the past three years (1975-77). The number of two-year colleges having graduates increased from 24 to 25.

TABLE 1.--Numbers and Types of Colleges Offering Higher Education in Agriculture, Illinois, 1977

| | |
|---|---|
| Number of Two-Year Colleges Certified to offer Agriculture Courses | 35 |
| Number of Four-Year Colleges offering Agriculture Degrees | 4 |
| Total | 39 |
| Number of Two-Year Colleges that Had Graduates from an Agriculture Program, 1977 | 25 |
| Number of Four-Year Colleges that had Agriculture Graduates, 1977 | 4 |
| Total | 29 |

The 39 Illinois colleges granted a total of 1,832 agriculture degrees in 1977 (Table 2). The two-year colleges granted 736, the vast majority being associate degrees. The average number of degrees for the 35 two-year schools was 21. However, all 736 graduates came from 25 schools. The resulting average per school here was 29.

The four-year colleges granted 1,096 degrees--887 B.S., 172 M.S., and 37 Ph.D. All four-year colleges offer the B.S., resulting in an average

of 222 per college. Two colleges offer the M.S., resulting in an average of 86. One Illinois college offers the Ph.D. in agriculture areas, and 27 were granted in 1977.

The two-year colleges had more graduates in 1976 and 1977 than in 1975, but with one percent less in 1977 than in 1976. The four-year colleges have had a steady increase in the number of B.S. degrees granted, as well as an increase in M.S. degrees. However, there were fewer M.S. degrees granted in 1977 than in 1976. There were more Ph.D. degrees granted in 1976 than in 1975, but fewer were granted in 1977 than either 1975 or 1976.

TABLE 2.--Agriculture Graduates, All Illinois Colleges Offering Agriculture Courses, 1977

| | |
|---|---|
| Number Awarded by Two-Year Colleges: Total | 736 |
| Average for 35 Colleges with Agriculture Courses = | 21 |
| Average for 25 Colleges with Agriculture Courses = | 29 |
| Number Awarded by Four-Year Colleges: Total | 1,096 |
| - B.S. (Average for the 4 = 222) | 887 |
| - M.S. (Average for the 2 = 86) | 172 |
| - Ph.D. (Average for the 1 = 37) | 37 |
| Grand Total | 1,832 |

The marketability of the agriculture graduates from the two-year Illinois colleges, 1977, was very good (Table 3). Forty-four percent were placed in private industry, primarily agribusiness, and 29 percent in farming, and less than one percent in professional farm management. Twenty percent of the graduates continued their education, usually at a four-year college.

TABLE 3.--Placement of 736 Agriculture Graduates, 25 Illinois Two-Year Colleges, 1977

| Placement Area | Number | Percent |
|---|---|---|
| Further Education | 150 | 20 |
| Education | 6 | 1 |
| Extension | 0 | 0 |
| Farming | 210 | 29 |
| Professional Farm Management | 1 | - |
| Private Industry | 323 | 44 |
| Government Work | 10 | 1 |
| Military | 2 | 0.5 |
| Not Placed | 3 | 0.5 |
| Others | 31 | 4 |
| Totals | 736 | 100 |

Private industry (primarily agribusiness), farming, and further education made up 93 percent of the job market for the two-year agriculture graduates, 1977.

On the basis of the three-year study period (1975-77), about 93 percent of the two-year agriculture graduates were placed in three areas: further education--19 percent, farming--31 percent, and agribusiness--43 percent.

The average monthly salary of the 736 two-year graduates was $753 (Table 4). The college personnel providing the data projected two-year agriculture graduates of 1978 to receive an average monthly salary of $788.

TABLE 4.--Beginning Monthly Salaries, 1977, and Expected Beginning Monthly Salaries, 1978, 736 Illinois Two-Year College Agriculture Graduates, 1977

| | |
|---|---|
| Average Monthly Salary, 1977 | $753 |
| Projected Average Monthly Salary, 1978 | $788 |

This represents a steady increase from 1975 through 1977, and the same is projected for 1978.

The greatest number of two-year agriculture graduates, 1977, was placed in private industry (agribusiness). Farming or production agriculture was second. Mechanics and the combined areas of landscaping and horticulture were equal (Table 5). As there was no surplus of graduates in any area, this order of placement should not be taken as a result of demand alone. In some areas, more jobs were reported available than there were graduates available for placement.

TABLE 5.--Placement of Specialized Illinois Two-Year Agriculture Graduates, In Order, as Reported by the 25 Two-Year Colleges, and Surplus Conditions, 1977

1. Ag. Business
2. Farming or Production Ag.
3. Mechanics (Tied with 4)
4. Landscaping and Horticulture (Tied with 3)

(No surplus of graduates in the above areas--another area (Conservation) was reported to have a surplus.)
(This order of placement is not to be taken as order of demand. Few could be placed if there were only a limited number of graduates available, and shortages were reported in 3 and 4.)

For the three-year period (1975-77), agribusiness and farming were the greatest areas of placement, followed by mechanics and a combination of landscaping and horticulture.

Demand for two-year college agriculture graduates in 1978 was projected to be slightly better than 1977 by 68 percent of the college personnel reporting (Table 6). Twelve percent projected demand to be much better. Sixteen percent projected demand for 1978 the same as for 1977. Since there was no surplus of graduates in all areas but one (Table 5), "the same" is a good situation. Four percent projected the demand for 1978 to be less than it was in 1977.

TABLE 6.--Projected Demand for 1978 Agriculture Graduates Relative to 1977, Illinois Two-Year Colleges, 1977

| Demand | Percent of Two-Year Colleges |
|---|---|
| Much Better | 12 |
| Slightly Better | 68 |
| Same as 1977 | 16 |
| Slightly Less | 4 |
| | 100 |

Projected demand has been good for each of the three years studied, with 60 percent or more of projections at slightly better to much better.

The four-year Illinois agriculture colleges granted 887 four-year degrees in 1977 (Table 7). Twenty-eight percent were placed in private industry, 18 percent in farming, and 16 percent in further education--usually graduate work. This total represented 62 percent of the four-year

agriculture graduates, 1977.

TABLE 7.--Placement of 887 B.S. Agriculture Graduates, All Four-Year Illinois Colleges, 1977

| Placement Area | Number | Percent |
|---|---|---|
| Further Education | 139 | 16 |
| Education | 43 | 5 |
| Extension | 5 | 1 |
| Farming | 156 | 18 |
| Prof. Farm Management | 28 | 3 |
| Private Industry | 253 | 28 |
| Government Work | 55 | 6 |
| Military | 2 | - |
| Not Placed | 56 | 6 |
| Others | 150 | 17 |
| Totals | 887 | 100 |

Only five percent of the 1977 graduates were placed in education and one percent in extension. However, there were vacancies for agriculture teachers in high schools in Illinois and other states in September, 1977. It is possible more could have been placed in teaching if there had been qualified graduates available.

During the three-year study period (1975-77), the placement areas of four-year graduates have been similar. About 27 percent were placed in agribusiness and 20 percent in farming. About 17 percent entered graduate work and 18 percent were grouped in "others." Slightly over five percent were placed in education or extension, and six percent were not placed at time of reporting.

The average monthly salary of the 887 four-year graduates was $910 (Table 8). The college personnel providing the data projected four-year agriculture graduates of 1978 to receive an average monthly salary of $973.

TABLE 8.--Beginning Average Monthly Salary, 887 B.S. Agriculture Graduates, 1977, and Projected Beginning Monthly Salaries, 1978

| | |
|---|---|
| Average Monthly Salary, 1977 | $910 |
| Projected Average Monthly Salary, 1978 | $973 |

The average monthly salary for the four-year agriculture graduates has shown little increase since 1975. The average for 1977 was identical to that of 1976. Some colleges reported an actual decline in 1977 as compared to 1976. Salaries for 1978 are projected to be higher.

The greatest number of four-year agriculture graduates, 1977, was reported to be in agribusiness, followed in order by farming or production agriculture, farm management and farm credit, animal agriculture, and agriculture education (Table 9). This order of placement is not a result of demand alone. In agricultural education, there were more vacancies than qualified candidates. At the time of reporting, there was a surplus of graduates in some areas, including forestry.

Agribusiness has been the leader for placement of four-year agriculture graduates each of the three years studied (1975-77). Farming was second in 1975 and 1977, fourth in 1976. The area of agriculture economics, including farm management, farm credit, and marketing, ranks a

close third. Agriculture education was fourth in 1975 and 1976, but dropped to fifth in 1977, replaced by animal agriculture. Surplus graduates in forestry have been reported all three years. The placement for the graduates of 1978 has been projected to be much the same as for the past three years.

TABLE 9.--Placement of Specialized B.S. Illinois Agriculture Graduates, 1977, In Order, as Reported by the Four Four-Year Colleges, Surplus Conditions, 1977, and the Projected Situation, 1978, as of 1977

1. Agriculture Business
2. Farming or Production Agriculture
3. Farm Mgt. and Farm Credit
4. Animal Agriculture
5. Agriculture Education

(Surplus graduates in forestry.)
(Three four-year schools projected the same conditions for 1978--one slightly better.)
(This order of placement is not to be taken totally as order of demand. Few could be placed if there were limited numbers of graduates available, as with Agriculture Education.)

In 1977, 172 M.S. and 37 Ph.D. degrees were granted by two of the four four-year agriculture colleges (Table 10). Ninety-eight percent of the M.S. and 100 percent of the Ph.D. graduates were employed. This is the highest placement record of all types of agriculture degrees awarded in 1977. This is unusual because of the present difficulty of placement of M.S. and Ph.D. graduates of some non-agricultural areas.

Of those receiving the M.S. degree, 98 percent were placed at the time of reporting. These graduates were placed in the following order:

further education--42 percent, private industry--38 percent, professional farm management--six percent, and education, farming, and not placed--two percent each. One percent went into extention work and one percent went into government work. Two areas, further education and private industry, provided the job market for 80 percent of the Illinois M.S. agriculture graduates, 1977. Two percent was in "others."

TABLE 10.--Placement of 172 M.S. and 37 Ph.D. Agriculture Graduates, Illinois Agriculture Colleges, 1977

| Placement Area | M.S. | | Ph.D. | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Further Education | 72 | 42 | 0 | 0 |
| Education | 3 | 2 | 20 | 54 |
| Extension | 2 | 1 | 0 | 0 |
| Farming | 3 | 2 | 0 | 0 |
| Prof. Farm Management | 10 | 6 | 0 | 0 |
| Private Industry | 66 | 38 | 15 | 41 |
| Government Work | 2 | 1 | 2 | 5 |
| Military | 0 | 0 | 0 | 0 |
| Not Placed | 3 | 2 | 0 | 0 |
| Others | 11 | 6 | 0 | 0 |
| Totals | 172 | 100 | 37 | 100 |

Of those receiving the Ph.D., 54 percent were reported as placed in education, 41 percent in private industry, and five percent in government work. This represents 100 percent placement.

During the three years studied (1975-77), there was a substantial

increase each year in the number of M.S. agriculture graduates continuing in graduate school. There was a substantial decrease each year in the number placed in education or extension. More M.S. graduates were placed in agribusiness in 1977 than in the previous two years. In 1975 and 1976, only two percent of the M.S. graduates were placed in farming, but the percentage increased to eight in 1977.

One-half or more of the Ph.D. graduates is usually placed in education, with the remainder primarily in agribusiness, followed by government work.

The demand for Illinois M.S. and Ph.D. agriculture degree graduates was excellent in 1977, and college personnel projected the demand to be the same in 1978 (Table 11). In 1977, the M.S. agriculture graduates received an average beginning monthly salary of $1,135. For 1978, it is projected to be $1,229. The Ph.D. agriculture graduates received an average beginning monthly salary of $1,597. Monthly salaries for 1978 are projected to be $1,625.

TABLE 11.--Beginning Monthly Salaries of 172 M.S. and 37 Ph.D. Agriculture Graduates, 1977, Illinois Agriculture Colleges, and Projected Salaries, 1978, as of 1977

| | |
|---|---|
| M.S.: Average Monthly Salary, 1977 | $1,135 |
| Ph.D.: Average Monthly Salary, 1977 | $1,597 |
| M.S.: Projected Average Monthly Salary, 1978 | $1,229 |
| Ph.D.: Projected Average Monthly Salary, 1978 | $1,625 |
| (Demand in all areas expected to be the same in 1978.) | |

For each of the three years studied (1975-77), average monthly salaries for M.S. and Ph.D. agriculture graduates have increased sub-

stantially, especially for the Ph.D. graduates. This situation has been projected to continue for 1978.

Of the 1,832 Illinois agriculture graduates from all agriculture colleges in 1977, 657 (36 percent) were reported as placed in private industry, 361 (20 percent) continued their education; and 369 (20 percent) entered farming (Table 12). This is a total of 1,387 (76 percent) going into these three general areas. Of the remaining 24 percent, four percent entered education, four percent government work, two percent professional

TABLE 12.--Placement of and Average Beginning Monthly Salaries, 1832 Agriculture Graduates, Illinois Two-Year and Four-Year Agriculture Colleges, 1977, and Projected Monthly Salaries, 1978, as of 1977

| Placement Area | Two-Year | | B.S. | | M.S. | | Ph.D. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| Further Education | 150 | 20 | 139 | 16 | 72 | 42 | 0 | 0 | 361 | 20 |
| Education | 6 | 1 | 43 | 5 | 3 | 2 | 20 | 54 | 72 | 4 |
| Extension | 0 | 0 | 5 | 1 | 2 | 1 | 0 | 0 | 7 | - |
| Farming | 210 | 29 | 156 | 18 | 3 | 2 | 0 | 0 | 369 | 20 |
| Prof. Farm Mgt. | 1 | - | 28 | 3 | 10 | 6 | 0 | 0 | 39 | 2 |
| Private Industry | 323 | 44 | 253 | 28 | 66 | 38 | 15 | 41 | 657 | 36 |
| Government Work | 10 | 1 | 55 | 6 | 2 | 1 | 2 | 5 | 69 | 4 |
| Military | 2 | .5 | 2 | - | 0 | 0 | 0 | 0 | 4 | - |
| Not Placed | 3 | .5 | 56 | 6 | 3 | 2 | 0 | 0 | 62 | 3 |
| Others | 31 | 4 | 150 | 17 | 11 | 6 | 0 | 0 | 192 | 11 |
| Totals | 736 | | 887 | | 172 | | 37 | | 1832 | 100 |
| Avg. Monthly Salary, 1977: | $753 | | $910 | | $1,135 | | $1,597 | | | |
| Expected Avg. Mo. Salary, 1978: | $788 | | $973 | | $1,229 | | $1,625 | | | |

farm management, three percent were not placed at the time of reporting, and 11 percent was in "others." The average monthly salaries are not shown for all 1,832 graduates since such an average would have little value.

For the three years studied (1975-77), 34 percent of all Illinois two-year and four-year graduates (5,188) were placed primarily in agribusiness, 21 percent in farming, 19 percent continued their education, 10 percent were in "others," five percent were in education, and three percent were not placed at time of reporting. The number of all graduates per year has been as follows: 1975--1,528; 1976--1,828; and 1977--1,832.

As stated at the beginning of this chapter, the data assembled in these first 12 tables were provided by personnel of the individual Illinois agriculture colleges through use of the one-page questionnaire (Appendix A). All data shown in the remaining tables were supplied by the individual Illinois agriculture graduates of 1977 through use of the three-page questionnaire (Appendix B).

## Data From Illinois Agriculture College Graduates, 1977

The data presented in the remaining tables (Tables 13-49) were assembled from individual reports of the Illinois agriculture college graduates of 1977. There were 1,832 such graduates. Of this total, 665 (36 percent) completed and returned the individual graduate questionnaire (three-page questionnaire). These returns were received from 97 percent of the 29 two-year and four-year agriculture colleges that had graduates in 1977. The agriculture college personnel were able to provide employment data through use of the one-page questionnaire on all (100 percent) of their graduates. As a result, it should be obvious that if data are desired on all of the graduates, data collection must be done primarily by college personnel where each graduate acquired the degree. This study illustrates the importance of colleges keeping follow-up data on their graduates.

The 36 percent return of completed individual agriculture graduate questionnaires represents a sample having an N=665. There are no apparent contradictions of data here, when compared to the data provided by the Illinois agriculture college personnel through use of the one-page questionnaire on all of the Illinois agriculture graduates, 1977.

The Illinois agriculture graduates of 1977 varied in age from 19 to 26 plus years (Table 13). However, 47.3 percent of the two-year graduates were in the 20-year age group and 31 percent were in the 21-year age group. These two age groups made up 78.3 percent of the two-year graduates.

Ages 22 to 25 included 78 percent of the four-year graduates. Approx-

TABLE 13.--Age, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of College | Age in Years 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26+ |
|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | |
| Two-Year | 10.3 | 47.3 | 31.0 | 7.3 | 3.0 | 2.7 | 1.3 | 3.4 |
| Four-Year | 6.3 | 2.7 | 2.7 | 28.0 | 29.6 | 15.3 | 5.2 | 10.1 |
| Combined | 5.3 | 22.9 | 15.5 | 18.6 | 17.6 | 9.6 | 3.5 | 7.1 |

imately 12 percent were below 22 and 10 percent 26 or more. The ages of all graduates have not changed significantly during the three years of the study.

Almost 86 percent of the two-year agriculture graduates in Illinois, 1977, were male and more than 14 percent were female (Table 14). Of the four-year graduates, more than 14 percent were female and almost 86 percent were male. During the three-year study period, the percentage of females has steadily increased--from about six percent in 1975 to 14 percent in 1977.

TABLE 14.--Sex and Background, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of College | Male | Female | Rural | Small Town | Urban |
|---|---|---|---|---|---|
| | | | Percent | | |
| Two-Year | 85.7 | 14.3 | 66.0 | 22.3 | 11.7 |
| Four-Year | 85.8 | 14.2 | 52.6 | 24.1 | 23.3 |
| Combined | 85.7 | 14.3 | 58.6 | 23.3 | 18.0 |

Relative to background, 66 percent of the two-year graduates of 1977 were from the farm, 22.3 percent from small towns, and 11.7 percent from urban areas. There were proportionately fewer four-year graduates (52.6 percent) than two-year graduates from rural areas. Developers of agriculture courses need to recognize that increasing numbers of the students presently taking agriculture courses vary in regard to their farm background and farm experience. During the three-year study period, the percentage of rural graduates has steadily decreased.

Slightly over one-half (51.7 percent) of the two-year Illinois agriculture graduates of 1977 had 4-H experience (Table 15). Approximately two-thirds (65.3 percent) had agriculture courses in high school, and fewer (57 percent) had FFA experience. Of the four-year college graduates, less than one-half (44.9 percent) had 4-H experience, and slightly more than one-third (39.7 percent) had agriculture courses in high school. Much the same was true for FFA experience. Approximately one-third (38.3 percent)

TABLE 15.--4-H, Agriculture Occupations Courses, FFA and Other Vocational Organization Experiences in High School, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of College | 4-H | | Ag. Occupations | | FFA | | Other Voc. Organizations | |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No | Yes | No |
| | Percent | | | | | | | |
| Two-Year | 51.7 | 48.3 | 65.3 | 34.7 | 57.0 | 43.0 | 38.3 | 61.7 |
| Four-Year | 44.9 | 55.1 | 39.7 | 60.3 | 38.1 | 61.9 | 24.4 | 75.6 |
| Combined | 48.0 | 52.0 | 51.3 | 48.7 | 46.6 | 53.4 | 30.7 | 69.3 |

of the two-year graduates and approximately one-fourth (24.4 percent) of the four-year graduates had some other vocational organization experience.

During the three-year study period, the percentage of agriculture graduates having 4-H, high school agriculture, and FFA experience has steadily declined.

More than one-third (38.7 percent) of the two-year graduates had four years of agriculture courses in high school (Table 16). Seven percent had three years, 10.7 percent had two years, 8.7 percent had one, and more than one-third (35 percent) had none.

TABLE 16.--Years of Agriculture Occupations Courses in High School, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of College | Years | | | | |
|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| | | | Percent | | |
| Two-Year | 35.0 | 8.7 | 10.7 | 7.0 | 38.7 |
| Four-Year | 60.8 | 3.0 | 5.5 | 9.6 | 21.1 |
| Combined | 49.2 | 5.6 | 7.8 | 8.4 | 29.0 |

Almost two-thirds (60.8 percent) of the four-year agriculture graduates had no agriculture courses in high school. Approximately one-fifth (21.1 percent) had four years. Of the remaining, 9.6 percent had three years, 5.5 percent had two, and three percent had one.

During the three-year study period, the percentage of Illinois agriculture graduates with four years of high school agriculture has declined from 47 percent in 1975 to 29 percent in 1977.

On the basis of these data pertaining to the four-year graduates, it appears that quite a few students in high school may be interested in agriculture but do not take any course prior to attending college. With 49.2 percent of all Illinois agriculture graduates of 1977 not taking agriculture courses in high school, there is an opportunity for Illinois high schools to increase enrollment in agriculture courses through the advisement process.

Of the 665 Illinois agriculture graduates of 1977 reporting, 300 (45.1 percent) were graduates of a two-year college, and 365 (54.9 percent) were graduates of a four-year college (Table 17). Of the 365 four-year graduates, 124 (34 percent) had previously graduated from a two-year college. This indicated that 424 (63.8 percent) of the Illinois agriculture graduates of 1977 had two-year college experience. On the basis of these data, the agriculture graduates of the Illinois two-year colleges have a great potential impact on Illinois agriculture. However, the percentage of two-year graduates of total graduates has steadily decreased during the three-year study period--from 58.8 percent in 1975 to 45.1 percent in 1977.

TABLE 17.--Number of Graduates, Two-Year and Four-Year Colleges, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of Graduates | Number | Percent |
|---|---|---|
| Graduates of Two-Year Colleges | 300 | 45.1 |
| Graduates of Four-Year Colleges | 365[1] | 54.9 |
| Total | 665 | 100.0 |

[1]Of this number, 34 percent (124) previously had graduated from a two-year college.

The area of agriculture production produced the highest percentage of two-year graduates in 1977 with 35.7 percent (Table 18), followed by ornamental horticulture with 18.7 percent, the agriculture supply program with 14.7 percent, agriculture mechanics with 14 percent, "other" with 8.6 percent, and the transfer program with 6.7 percent. The six areas produced 98.4 percent of the two-year agriculture graduates in 1977.

TABLE 18.--Area of Specialization, Reporting Two-Year Illinois Agriculture Graduates, 1977 (N=300)

| Ag. Prod. | Ag. Supply | Ag. Mech. | Ag. Products | Orn. Hort. | Ag. Resources | Forestry | Transfer | Other |
|---|---|---|---|---|---|---|---|---|
| | | | | Percent | | | | |
| 35.7 | 14.7 | 14.0 | 1.0 | 18.7 | 0.3 | 0.3 | 6.7 | 8.6 |

During the three-year study period, the area of agriculture production has always produced the most two-year graduates. However, the percentage of graduates from ornamental horticulture has increased 2.43 times from 1975 through 1977. The areas of production, supply, and mechanics have shown a decrease in the percentage of total two-year graduates.

The associate degree is by far the most common type of degree granted by the Illinois two-year agriculture colleges (Table 19). The associate degree was granted to 96.3 percent of the 1977 graduates and a certificate to 2.3 percent. A few graduates reported they were graduates, but also indicated they did not graduate. These percentages are very similar to the data of 1975 and 1976.

TABLE 19.--Type of Degree Earned, Reporting Two-Year Illinois Agriculture Graduates, 1977 (N=300)

| Degree | | |
|---|---|---|
| Associate | Certificate | None |
| Percent | | |
| 96.3 | 2.3 | 1.3 |

More areas of specialization are offered by the four-year Illinois agriculture colleges than by the two-year colleges. The area of general agriculture produced 16.4 percent of the four-year graduates of 1977 (Table 20), followed by natural resources with 13.4 percent, animal agriculture with 13.2, agribusiness with 11.8, horticulture with 10.4, agriculture science with 9.6, education and communication with 8.5, plant agriculture with 7.1, and agriculture economics with six percent. The areas of agriculture engineering (mechanics) graduated 1.9 percent, "other" 1.6 percent, and food and nutrition had none.

TABLE 20.--Area of Specialization, Reporting Four-Year Illinois Agriculture Graduates, 1977 (N=365)

| Ag. Bus. | Ag. Econ. | Ag. Sci. | Anim. Ag. | Edu. & Comm. | Ag. Engin. (Mech.) | Food | Gen. Ag. | Hort. | Nat. Res. | Plant Ag. | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent | | | | | | | | | | | |
| 11.8 | 6.0 | 9.6 | 13.2 | 8.5 | 1.9 | 0.0 | 16.4 | 10.4 | 13.4 | 7.1 | 1.6 |

During the three-year study period, the areas of general agriculture and plant agriculture have shown increases in the percentage of total four-

year graduates. Agriculture science and agriculture economics have shown decreases. The percentage of agribusiness graduates increased in 1976 over 1975, but the percentage of agribusiness graduates declined in 1977 from that of 1976.

Almost one-half (46.7 percent) of the Illinois two-year agriculture graduates of 1977 were placed in a salaried position (Table 21). Almost one-fifth (18.7 percent) continued their education, 10.3 percent became self-employed, and 8.3 percent became a partner in business (probably farming). "Other" employment was found by 11.7 percent and no career employment was reported by 4.3 percent. These latter two areas showed large percentage increases over 1975 and 1976.

TABLE 21.--Employment Status, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=665)

| Type of College | Student | Salaried | Partner in Business | Self-Employed | No Career Employment | Other |
|---|---|---|---|---|---|---|
| | | | Percent | | | |
| Two-Year | 18.7 | 46.7 | 8.3 | 10.3 | 4.3 | 11.7 |
| Four-Year | 13.4 | 55.1 | 6.3 | 11.7 | 8.0 | 5.4 |
| Combined | 15.8 | 51.3 | 7.2 | 10.7 | 6.8 | 8.2 |

The majority of all four-year agriculture graduates of 1977 (55.1 percent) obtained salaried positions. The next largest group (13.4 percent) continued their education, followed by 11.7 percent becoming self-employed and 6.3 percent becoming a partner in business. Eight percent reported no career employment, and 5.4 percent reported "other." These data are similar to those of 1975 and 1976.

One-third (36.9 percent) of the two-year agriculture graduates of 1977 entered farming (Table 22). Apparently, some are employees as Table 21 shows 8.3 percent as partners in business and 10.3 percent as self-employed. Over one-fifth (22 percent) were placed in agribusiness. There were 22 percent in agriculture related jobs and 19.1 percent in non-agriculture positions.

TABLE 22.--Type of Employment, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=549)

| Type of College | Farming | Ag. Business | Ag. Related | Non-Ag. |
|---|---|---|---|---|
| | | Percent | | |
| Two-Year | 36.9 | 22.0 | 22.0 | 19.1 |
| Four-Year | 26.0 | 20.8 | 33.8 | 19.4 |
| Combined | 30.8 | 21.3 | 28.6 | 19.3 |

During the three-year study period, the percentage of two-year graduates going into agriculture related and non-agriculture employment has increased, and the percentage going into farming has decreased. The percentage going into agribusiness shows an overall decrease.

Of the four-year agriculture graduates of 1977, more than one-fourth (26 percent) entered farming. The largest group (33.8 percent) was employed in agriculture related jobs and 20.8 percent in agribusiness. It is possible many of the agriculture related jobs are really agribusiness. Regardless, agribusiness and agriculture related areas provided well over one-half of the jobs (54.6 percent) obtained. Almost one out of five (19.4 percent) of the four-year graduates entered non-agriculture areas.

For all agriculture graduates of 1977, 30.8 percent entered farming, 28.6 percent entered agriculture related, 21.3 percent entered agribusiness, and 19.3 percent entered non-agriculture positions.

During the three-year study period, the percentage of four-year graduates going into farming has steadily decreased at a low rate. The percentage going into agribusiness was almost the same in 1976 and 1977, greater in both years than in 1975. The percentage going into agriculture related and non-agriculture employment is similar for all three years. The percentage of all Illinois agriculture graduates entering non-agriculture positions has steadily increased.

As to the type of employer, 38.2 percent of the two-year graduates reported farming (Table 23), 21.1 percent reported farm supply, and 4.1 percent reported service. The areas of farming, farm supply, and service accounted for almost two-thirds (63.4 percent) of the types of employers. "Other" was reported by 32.3 percent.

TABLE 23.--Type of Employer, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547)

| Type of College | Farming | Farm Sup. | Serv. | Mgt. | Ag. Fin. | El. & Sec. Ed. | Higher Ed. | Govt. | Food Dist. | Other Agr. Rel. | Other Non-Agr. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Percent | | | | | |
| Two-Year | 38.2 | 21.1 | 4.1 | 0.0 | 0.0 | 0.0 | 0.8 | 2.5 | 0.8 | 14.9 | 17.4 |
| Four-Year | 26.1 | 15.4 | 3.3 | 1.3 | 5.2 | 9.2 | 2.0 | 8.5 | 1.6 | 11.1 | 16.3 |
| Combined | 31.4 | 17.9 | 3.7 | 0.7 | 2.9 | 5.1 | 1.5 | 5.9 | 1.3 | 12.8 | 16.8 |

Types of employers of the four-year agriculture graduates of 1977 were greater in number. However, 26.1 percent reported farming, 15.4 percent

farm supply, the two types of education 11.2 percent, and 8.5 percent government. These four types of employers provided jobs to almost two-thirds (61.2 percent) of the four-year agriculture graduates. Agriculture finance was reported by 5.2 percent, service by 3.3 percent, food distribution by 1.6 percent, and management by 1.3 percent. "Other" was reported by 27.4 percent.

For the population of 1977 agriculture graduates, 31.4 percent reported type of employer as farming and 17.9 percent as farm supply. These two areas provided employment for almost one-half (49.3 percent) of the Illinois agriculture graduates of 1977.

During the three-year study period, type of employer data has varied greatly with little indication of any trends. However, farming has always absorbed many agriculture graduates, and more entered "other" in 1976 and 1977 than in 1975.

The majority (61 percent) of the Illinois two-year agriculture graduates reported a "very close" relationship between employment and college major (Table 24). "Closely" was reported by 17.4 percent, "somewhat" by 10.4 percent, and 11.2 percent reported "not related."

TABLE 24.--Relationship of Employment to College Major, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547)

| Type of College | Very Closely | Closely | Somewhat | Not Related |
|---|---|---|---|---|
| | | Percent | | |
| Two-Year | 61.0 | 17.4 | 10.4 | 11.2 |
| Four-Year | 46.1 | 25.5 | 15.0 | 13.4 |
| Combined | 52.7 | 21.9 | 13.0 | 12.4 |

Less than one-half (46.1 percent) of the four-year agriculture graduates reported a "very close" relationship. "Closely" was reported by 25.5 percent, "somewhat" by 15 percent, and "not related" by 13.4 percent.

More agriculture graduates of 1977 reported employment not related to their college major than the graduates of both 1975 and 1976.

Approximately one out of eight (12.9 percent) of the Illinois two-year agriculture graduates of 1977 reported less than $5,000 annual earnings from their first major employment (Table 25), 17.4 percent reported $5,000 to $7,000, 20.8 percent $7,000 to $9,000, 23.2 percent $9,000 to $11,000, 13.7 percent $11,000 to $13,000, and 12 percent reported annual earnings from $13,000 to more than $31,000. Almost one-third (30.3 percent) reported less than $7,000.

TABLE 25.--Annual Earnings from First Major Employment, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=547)

| Type of College | Thousand ($) -5 | 5 -7 | 7 -9 | 9 -11 | 11 -13 | 13 -15 | 15 -17 | 17 -19 | 19 -21 | 21 -23 | 23 -27 | 27 -31+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | | | | | |
| Two-Year | 12.9 | 17.4 | 20.8 | 23.2 | 13.7 | 5.4 | 2.5 | 1.7 | 0.4 | 0.4 | 0.8 | 0.8 |
| Four-Year | 9.5 | 8.2 | 12.1 | 25.8 | 25.2 | 11.4 | 4.3 | 1.3 | 1.0 | 0.7 | 0.3 | 0.0 |
| Combined | 11.0 | 12.3 | 15.9 | 24.7 | 20.1 | 8.8 | 3.5 | 1.5 | 0.7 | 0.6 | 0.6 | 0.0 |

About one-fourth (25.8 percent) of the four-year graduates reported annual earnings of $9,000 to $11,000, and one-fourth (25.2 percent) reported $11,000 to $13,000. Almost three-fourths (74.5 percent) reported earnings of $7,000 to $15,000. Others (7.6 percent reported salaries ranging from $15,000 to more than $31,000, and 17.7 percent reported less

than $7,000.

During the three-year study period, annual earnings have increased. However, the percentage of all graduates earning less than $7,000 has always been above 20 percent. This has decreased from 30.5 percent in 1975 to 23.3 in 1977.

Approximately one-fourth (24.8 percent) of all Illinois agriculture graduates of 1977 that were employed also had secondary employment and earnings (Table 26). Annual secondary earnings of less than $1,000 and up to $4,000 were reported by three-fourths (75.8 percent) of those having such earnings. Others (24.1 percent) reported earnings from $4,000 to more than $7,000 from secondary employment.

TABLE 26.--Secondary Employment and Earnings, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=541)

| Type of College | Yes | No | Thousand ($) -1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7+ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Percent | | | | | |
| Two-Year | 27.9 | 72.1 | 28.8 | 15.2 | 15.2 | 19.7 | 7.6 | 1.5 | 3.0 | 9.1 |
| Four-Year | 22.3 | 77.7 | 22.7 | 28.8 | 13.6 | 7.6 | 9.1 | 4.5 | 6.1 | 7.6 |
| Combined | 24.8 | 75.2 | 25.8 | 22.0 | 14.4 | 13.6 | 8.3 | 3.0 | 4.5 | 8.3 |

Fewer (22.3 percent) of the four-year graduates employed also reported earnings from secondary employment than did the two-year graduates. Almost two-thirds (65.1 percent) of those reporting secondary employment reported from less than $1,000 up to $3,000 annually. The remaining one-third (34.9 percent) was about equally distributed between $3,000 to $7,000 plus.

Each year, during the three-year study period, more of the two-year

graduates reported secondary employment than the four-year graduates. Percentages each year have been similar.

Almost two-thirds (60.1 percent) of the two-year graduates rated their higher education "superior" or "above average" (Table 27), and 58.4 percent of the four-year graduates rated their education "superior" or "above average," relative to achieving present employment status. About one-third of each group rated it "average."

TABLE 27.--Student Evaluation of Higher Education Received Relative to Achieving Present Employment Status and Potential, Reporting Two-Year and Four-Year Illinois Agriculture Graduates, 1977 (N=546)

| Type of College | Superior | Above Average | Average | Below Average | Inadequate |
|---|---|---|---|---|---|
| | | | Percent | | |
| Two-Year | 20.7 | 39.4 | 32.8 | 3.3 | 3.7 |
| Four-Year | 17.7 | 40.7 | 32.5 | 5.9 | 3.3 |
| Combined | 19.0 | 40.1 | 32.6 | 4.8 | 3.5 |

During the three-year study period, more than 90 percent of all graduates have evaluated the program "average" to "superior." Approximately one-fifth reported as "superior," two-fifths "above average," and one-third "average." Less than 10 percent reported "below average" or "inadequate."

## Data by Field of Study, from Individual Illinois Agriculture Graduates, 1977

The remaining tables (Tables 28 through 49) are based on data provided by Illinois agriculture graduates of 1977 by field of study. Previous tables included data on graduates primarily as two-year and four-year graduates.

The vast majority (85.7 percent) of Illinois agriculture two-year graduates of 1977 were male (Table 28). Males made up 100 percent of the graduates of agriculture mechanics, agriculture products, resources, and forestry. Females accounted for 42.9 percent of the 1977 graduates of

TABLE 28.--Sex and Background, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300)

| Field of Study | Percent in Program | Male | Female | Background | | |
|---|---|---|---|---|---|---|
| | | | | Rural | Small Town | Urban |
| | | | Percent | | | |
| Ag. Production | 35.7 | 96.3 | 3.7 | 86.0 | 11.2 | 2.8 |
| Ag. Supp. & Serv. | 14.7 | 88.6 | 11.4 | 70.5 | 25.0 | 4.5 |
| Ag. Mech. | 14.0 | 100.0 | 0.0 | 81.0 | 16.7 | 2.4 |
| Ag. Products | 1.0 | 100.0 | 0.0 | 33.3 | 33.3 | 33.3 |
| Orn. Hort. | 18.7 | 57.1 | 42.9 | 25.0 | 35.7 | 39.3 |
| Ag. Resources | 0.3 | 100.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Forestry | 0.3 | 100.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Transfer | 6.7 | 90.0 | 10.0 | 65.0 | 15.0 | 20.0 |
| Other | 8.7 | 69.2 | 30.8 | 50.0 | 42.3 | 7.7 |
| Total | 100.0 | 85.7 | 40.3 | 66.0 | 22.3 | 11.7 |

horticulture, 11.4 percent of supply and services, 10 percent of the transfer program, 3.7 percent of agriculture production, and 30.8 percent of "other." During the three-year study period, ornamental horticulture has had a large percentage of females. In 1977, larger percentages appeared also in other fields, especially supply (agribusiness) and "other."

Relative to background, almost two-thirds (66 percent) of the 1977 two-year graduates had a rural background. Few of the graduates with a rural background were in horticulture. One-fourth (25 percent) of the horticulture graduates were from rural areas, more than one-third (35.7 percent) were from small towns, and more (39.3 percent) were from urban areas. During the three-year study period, the number of two-year graduates from small town and urban areas has steadily increased.

Two-year graduates of agriculture production, supply and services, agriculture mechanics, forestry, and the transfer program were primarily those having previous experience in 4-H, high school agriculture, and FFA (Table 29). Two-year graduates of the horticulture, resource, forestry, and "other" programs had less experience in 4-H, high school agriculture, and FFA. During the three-year study period, the percentages of all graduates having these experiences has steadily declined.

In all areas of study, the vast majority (96.3 percent) of the Illinois two-year agriculture graduates of 1977 received the associate degree (Table 30). This is typical of each year of the three-year study.

Almost one-fifth (18.7 percent) of the Illinois two-year graduates of 1977 continued their education at a four-year college (Table 31). The largest groups continuing their education were from the resource, forestry, and transfer fields of study. The smallest groups continuing their education

TABLE 29.--4-H, High School Ag. and FFA Experience, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300)

| Field of Study | 4-H Experience | | High School Ag. Experience | | FFA Experience | |
|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No |
| | | | Percent | | | |
| Ag. Production | 66.4 | 33.6 | 80.4 | 19.6 | 77.6 | 22.4 |
| Ag. Supp. & Serv. | 70.5 | 29.5 | 84.1 | 15.9 | 75.0 | 25.0 |
| Ag. Mech. | 47.6 | 52.4 | 81.0 | 19.0 | 66.7 | 33.3 |
| Ag. Products | 33.3 | 66.7 | 66.7 | 33.3 | 66.7 | 33.3 |
| Orn. Hort. | 17.9 | 82.1 | 23.2 | 76.8 | 8.9 | 91.1 |
| Ag. Resources | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 |
| Forestry | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 |
| Transfer | 55.0 | 45.0 | 70.0 | 30.0 | 60.0 | 40.0 |
| Other | 38.5 | 61.5 | 34.6 | 65.4 | 26.9 | 73.1 |
| Total | 51.7 | 48.3 | 65.3 | 34.7 | 57.0 | 43.0 |

were from the agriculture products, supply, and mechanics fields--all less than five percent. Agriculture mechanics graduates had the greatest percentage in salaried positions (71.4 percent), followed by the graduates from the agriculture products program (66.7 percent) and the agriculture supply program (63.6 percent). Almost one-half (48 percent) of the "other" graduates became salaried. Almost two-fifths (39.3 percent) of the agriculture production graduates were in the combined groups "partner in business" and "self-employed." During the three-year study period, no apparent trends have appeared in employment status on the basis of field of study.

Farming absorbed more than one-third of the Illinois two-year agri-

TABLE 30.--Types of Degrees, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300)

| Field of Study | Degree | | |
|---|---|---|---|
| | Associate | Certificate | None[1] |
| | | Percent | |
| Ag. Production | 97.2 | 1.9 | 0.9 |
| Ag. Supp. & Serv. | 97.7 | 2.3 | 0.0 |
| Ag. Mech. | 97.6 | 2.4 | 0.0 |
| Ag. Products | 66.7 | 33.3 | 0.0 |
| Orn. Hort. | 98.2 | 1.8 | 0.0 |
| Ag. Resources | 100.0 | 0.0 | 0.0 |
| Forestry | 100.0 | 0.0 | 0.0 |
| Transfer | 95.0 | 5.0 | 0.0 |
| Other | 100.0 | 0.0 | 0.0 |
| Total | 96.3 | 2.3 | 1.4 |

[1]These reported as graduates, but also indicated they did not graduate.

culture graduates of 1977 (Table 32). By field of study, 81 percent of the production graduates that accepted employment went into farming, followed by 20 percent of the mechanics graduates, 10 percent of the "other," and 7.1 percent of the supply graduates. No graduates of agriculture products, ornamental horticulture, resources, forestry, or transfer went into farming. A large majority (73.8 percent) of the agriculture supply graduates went into agribusiness, followed by 66.7 percent of the graduates of agriculture products, and 27.5 percent of those from agriculture mechanics. More than one-half (51.2 percent) of the horticulture graduates were employed in

TABLE 31.--Employment Status, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=300)

| Field of Study | Student | Salaried | Partner | Self Employed | No Career Employment | Other |
|---|---|---|---|---|---|---|
| | | | Percent | | | |
| Ag. Production | 12.1 | 37.4 | 18.7 | 20.6 | 3.7 | 7.5 |
| Ag. Supp. & Serv. | 4.5 | 63.6 | 2.3 | 9.1 | 2.3 | 18.2 |
| Ag. Mech. | 4.8 | 71.4 | 4.8 | 7.1 | 4.8 | 7.1 |
| Ag. Products | 0.0 | 66.7 | 0.0 | 0.0 | 0.0 | 33.3 |
| Orn. Hort. | 19.6 | 50.0 | 3.6 | 3.6 | 7.1 | 16.1 |
| Ag. Resources | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 24.0 | 48.0 | 0.0 | 0.0 | 8.0 | 20.0 |
| Total | 18.7 | 46.7 | 8.3 | 10.3 | 4.3 | 11.7 |

agriculture related positions and 41.8 percent in non-agriculture positions. During the three-year study period, the percentage of all graduates going into farming has steadily decreased, and the percentages going into other fields of study have steadily increased.

Farming and farm supply accounted for the types of employers of much over one-half (59.6 percent) of the Illinois two-year agriculture graduates of 1977 that accepted employment (Table 33). "Farming" was reported by 82.8 percent of the production graduates and 17.5 percent of the mechanics graduates. No two-year graduates of agriculture products, horticulture, resources, forestry, or transfer went into farming. A "supply" type of

TABLE 32.--Type of Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241)

| Field of Study | Farming | Ag. Business | Ag. Related | Non-Ag. |
|---|---|---|---|---|
| | | Percent | | |
| Ag. Production | 81.7 | 5.4 | 6.5 | 6.5 |
| Ag. Supp. & Serv. | 7.1 | 73.8 | 7.1 | 11.9 |
| Ag. Mech. | 20.0 | 27.5 | 35.0 | 17.5 |
| Ag. Products | 0.0 | 66.7 | 33.3 | 0.0 |
| Orn. Hort. | 0.0 | 7.0 | 51.2 | 41.8 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 10.0 | 5.0 | 35.0 | 50.0 |
| Total | 36.9 | 22.0 | 22.0 | 19.1 |

employer provided employment for 59.5 percent of the supply graduates and 52.5 percent of the mechanics graduates. "Other" was chosen by 32.1 percent of the graduates, with 15 percent entering "other, agriculture related" and 17.1 percent entering "other, non-agriculture." Over one-half (51.2 percent) of the horticulture graduates went into "other, agriculture related." This data indicates that two-year graduates are adequately versatile to go into other areas of employment, either by choice or by necessity.

During the three-year study period, over one-half of the graduates each year has gone with a farming or supply type of employer. "Other," either agriculture related or non-agriculture has always been the third

TABLE 33.--Type of Employer, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240)

| Field of Study | Farming | Supply | Services | Mgt. | Finance | Higher Educ. | Gov't | Food | Other Ag. Rel. | Other Non-Agr. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Percent | | | | | |
| Ag. Production | 82.8 | 3.2 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 2.2 | 7.5 |
| Ag. Supp. & Serv. | 14.3 | 59.5 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.9 | 9.5 |
| Ag. Mechanics | 17.5 | 52.5 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 15.0 |
| Ag. Products | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 33.3 | 0.0 |
| Orn. Hort. | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 4.7 | 4.7 | 0.0 | 51.2 | 37.2 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 10.5 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 21.1 | 0.0 | 15.8 | 42.1 |
| Total | 38.3 | 21.3 | 4.2 | 0.0 | 0.0 | 0.8 | 2.5 | 0.8 | 15.0 | 17.1 |

largest type of employer.

A large majority (78.4 percent) of the two-year Illinois agriculture graduates of 1977 that accepted employment indicated a "very close" or "close" relationship between employment and program studied (Table 34). The agriculture production graduates indicated the greatest relationship, followed in order by the graduates of agriculture mechanics, agriculture supply, "other," and ornamental horticulture. During the three-year study period, the graduates of 1977 reported the least relationship between field of study and employment.

Almost one-fifth (20.8 percent) of the two-year Illinois agriculture

TABLE 34.--Evaluation by Graduates of Relationship Between Employment and Field of Study Taken, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241)

| Field of Study | Very Closely | Closely | Somewhat | Not Related |
|---|---|---|---|---|
| | | Percent | | |
| Ag. Production | 78.5 | 7.5 | 7.5 | 6.5 |
| Ag. Supp. & Serv. | 57.1 | 16.7 | 19.1 | 7.1 |
| Ag. Mechanics | 55.0 | 25.0 | 10.0 | 10.0 |
| Ag. Products | 33.3 | 33.3 | 33.3 | 0.0 |
| Orn. Hort. | 48.8 | 20.9 | 14.7 | 25.6 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 30.0 | 40.0 | 15.0 | 15.0 |
| Total | 61.0 | 17.4 | 10.4 | 11.2 |

graduates of 1977 that accepted employment had annual salaries of $7,000 to $9,000, and 23.2 percent had salaries of $9,000 to $11,000 (Table 35). Almost one-third (30.3 percent) reported salaries of less than $5,000 to $7,000. By field of study, the agriculture production graduates had the greatest range of salaries, ranging from less than $5,000 to more than $31,000. Over 90 percent of the supply graduates reported salaries of $5,000 to $13,000. Agriculture production, agriculture mechanics, and agriculture supply graduates reported the highest earnings. Ornamental horticulture and other graduates reported the lowest. However, 18.7 percent

of the horticulture graduates reported earnings ranging from $11,000 to less than $19,000. During the three-year study period, the relationship between annual income and field of study has been uniform.

TABLE 35.--Annual Income, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=241)

| Field of Study | Thousand ($) -5 | 5 -7 | 7 -9 | 9 -11 | 11 -13 | 13 -15 | 15 -17 | 17 -19 | 19 -21 | 21 -23 | 25 -27 | 27 -29 | 31+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | | | | | | |
| Ag. Production | 10.0 | 9.7 | 20.4 | 29.0 | 12.9 | 6.5 | 2.2 | 3.2 | 0.0 | 1.1 | 1.1 | 1.1 | 1.1 |
| Ag. Supp. & Serv. | 4.8 | 23.8 | 19.1 | 23.8 | 23.8 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ag. Mechanics | 15.0 | 15.0 | 22.5 | 17.5 | 20.0 | 2.5 | 2.5 | 0.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 |
| Ag. Products | 0.0 | 0.0 | 33.3 | 33.3 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Orn. Hort. | 16.3 | 25.6 | 20.9 | 18.6 | 4.7 | 7.0 | 4.7 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 30.0 | 30.0 | 20.0 | 15.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 12.9 | 17.4 | 20.8 | 23.2 | 13.7 | 5.4 | 2.5 | 1.7 | 0.4 | 1.2 | 0.4 | 0.0 | 0.4 |

More than one-fourth (27.9 percent) of the Illinois two-year agriculture graduates of 1977 that accepted employment also had secondary employment (Table 36). Secondary employment and earnings were available to some graduates of agriculture production, supply and services, mechanics, horticulture, and "other." Apparently, the greatest opportunity for such employment was for the graduates of supply and services. By field of study, secondary employment and earnings have varied widely during the three-year

study period.

TABLE 36.--Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240)

| Field of Study | Yes | No |
|---|---|---|
| | Percent | |
| Ag. Production | 31.5 | 68.5 |
| Ag. Supp. & Serv. | 42.9 | 57.1 |
| Ag. Mechanics | 20.0 | 80.0 |
| Ag. Products | 0.0 | 100.0 |
| Orn. Hort. | 18.6 | 81.4 |
| Ag. Resources | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 |
| Other | 20.0 | 80.0 |
| Total | 27.9 | 72.1 |

Over one-fourth (28.8 percent) of the employed two-year agriculture graduates of 1977 that had secondary employment earned less than $1,000 from such employment (Table 37), but one-half (50.1 percent) earned from $1,000 to $4,000. The graduates from agriculture production, supply, ornamental horticulture, and "other" reported the greatest opportunity for higher secondary employment earnings. One-fourth (25 percent) of horticulture and "other" graduates reported earnings of $7,000 or more.

During the three-year study period, the percentage of graduates having secondary employment has remained stable, and earnings have steadily

increased.

TABLE 37.--Annual Earnings of Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=66)

| Field of Study | Thousand ($) -1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7+ |
|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | |
| Ag. Production | 21.4 | 21.4 | 25.0 | 10.7 | 7.1 | 3.6 | 3.6 | 7.1 |
| Ag. Supp. & Serv. | 27.8 | 16.7 | 11.1 | 27.8 | 11.1 | 0.0 | 0.0 | 5.6 |
| Ag. Mechanics | 50.0 | 0.0 | 0.0 | 37.5 | 12.5 | 0.0 | 0.0 | 0.0 |
| Ag. Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Orn. Hort. | 37.5 | 0.0 | 12.5 | 12.5 | 0.0 | 0.0 | 12.5 | 25.0 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 25.0 | 25.0 | 0.0 | 25.0 | 0.0 | 0.0 | 0.0 | 25.0 |
| Total | 28.8 | 15.2 | 15.2 | 19.7 | 7.6 | 1.5 | 3.0 | 9.1 |

Sixty percent of the Illinois two-year agriculture graduates of 1977 evaluated the programs received "superior" or "above average" (Table 38). Approximately one-third (32.9 percent) evaluated the program received "average." By field of study, the graduates most critical of the programs came from horticulture and "other," with 11.6 and 5.3 percent respectively reporting "inadequate."

During the three-year study period, over 90 percent of all graduates of each year have evaluated the programs received "average" to "superior."

TABLE 38.--Student Evaluation of Agriculture Program, Reporting Illinois Two-Year College Agriculture Graduates, 1977 (N=240)

| Field of Study | Superior | Above Average | Average | Below Average | Inadequate |
|---|---|---|---|---|---|
| | | | Percent | | |
| Ag. Production | 28.0 | 38.7 | 31.2 | 1.1 | 1.1 |
| Ag. Supp. & Serv. | 23.8 | 42.9 | 21.4 | 9.5 | 2.4 |
| Ag. Mechanics | 17.5 | 42.5 | 35.0 | 2.5 | 2.5 |
| Ag. Products | 66.7 | 0.0 | 33.3 | 0.0 | 0.0 |
| Orn. Hort. | 4.7 | 34.9 | 46.5 | 2.3 | 11.6 |
| Ag. Resources | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Forestry | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 15.8 | 42.1 | 31.6 | 5.3 | 5.3 |
| Total | 20.8 | 39.2 | 32.9 | 3.3 | 3.8 |

Of the total graduated from the Illinois four-year agriculture program in 1977, 85.8 percent were male and 14.2 percent were female (Table 39). There were females in all fields of study except agriculture mechanics, food and nutrition, and general agriculture. However, the highest percentage of females, by field of study, graduated from horticulture and animal agriculture.

More than one-half (52.6 percent) of the four-year graduates had a "rural" background, 24.1 percent were from small towns, and 23.3 percent from urban areas. Small town and urban graduates graduated primarily from the fields of horticulture, natural resources, plant agriculture, and "other."

TABLE 39.--Sex and Background, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365)

| Field of Study | In Program | Male | Female | Background | | |
|---|---|---|---|---|---|---|
| | | | | Rural | Small-Town | Urban |
| | | | Percent | | | |
| Ag. Bus. | 11.8 | 90.7 | 9.3 | 65.1 | 23.3 | 11.6 |
| Ag. Econ. | 6.0 | 86.4 | 13.6 | 59.1 | 27.3 | 13.6 |
| Ag. Science | 9.6 | 85.7 | 14.3 | 62.9 | 17.1 | 20.0 |
| Animal Ag. | 13.2 | 77.1 | 22.9 | 68.8 | 12.5 | 18.8 |
| Edu. & Comm. | 8.5 | 90.3 | 9.7 | 77.4 | 3.2 | 19.4 |
| Ag. Mech. | 1.9 | 100.0 | 0.0 | 71.4 | 14.3 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 16.4 | 100.0 | 0.0 | 63.3 | 20.0 | 16.7 |
| Horticulture | 10.4 | 52.6 | 47.4 | 10.5 | 55.3 | 34.2 |
| Natural Res. | 13.4 | 91.8 | 8.2 | 22.4 | 32.7 | 44.9 |
| Plant Agr. | 7.1 | 88.5 | 11.5 | 50.0 | 30.8 | 19.2 |
| Other | 1.6 | 83.3 | 16.7 | 16.7 | 16.7 | 66.7 |
| Total | 100.0 | 85.8 | 14.2 | 52.6 | 24.1 | 23.3 |

The fields of agribusiness, economics, animal agriculture, science, education and communication, mechanics, and general agriculture were dominated by those with a rural background.

During the three-year study period, the number of female graduates has steadily increased, as well as those from small-town and urban areas.

Less than one-half (44.9 percent) of the Illinois four-year agriculture graduates of 1977 had 4-H experience (Table 40). Graduates without such

experience were primarily from the fields of horticulture, natural resources, plant agriculture, and "other."

TABLE 40.--4-H, High School Agriculture, and FFA Experience, by Field of Study, Reporting Illinois Four-Year Agriculture Graduates, 1977 (N=365)

| Field of Study | 4-H | | High School Ag. | | FFA | |
|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No |
| | Percent | | | | | |
| Ag. Bus. | 55.8 | 44.2 | 44.2 | 55.8 | 44.2 | 55.8 |
| Ag. Econ. | 54.5 | 45.5 | 54.5 | 45.5 | 54.5 | 45.5 |
| Ag. Science | 54.3 | 45.7 | 28.6 | 71.4 | 22.9 | 77.1 |
| Animal Ag. | 58.3 | 41.7 | 50.0 | 50.0 | 52.1 | 47.9 |
| Edu. & Comm. | 71.0 | 29.0 | 64.5 | 35.5 | 71.0 | 29.0 |
| Ag. Mech. | 71.4 | 28.6 | 85.7 | 14.3 | 85.7 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 60.0 | 40.0 | 60.0 | 40.0 | 58.3 | 41.7 |
| Horticulture | 13.2 | 86.8 | 18.4 | 81.6 | 7.9 | 92.1 |
| Natural Res. | 10.2 | 89.8 | 10.2 | 89.8 | 6.1 | 93.9 |
| Plant Agr. | 30.8 | 69.2 | 19.2 | 88.8 | 19.2 | 80.8 |
| Other | 0.0 | 100.0 | 16.7 | 83.3 | 16.7 | 83.3 |
| Total | 44.9 | 55.1 | 39.7 | 60.3 | 38.1 | 61.9 |

Much less than one-half (39.7 percent) of the graduates had high school agriculture. Over 80 percent of the graduates from each of the fields of horticulture, natural resources, plant agriculture, and "other" had no high school agriculture.

As FFA is so closely associated with high school agriculture, the

number which had FFA experience was almost identical to those having high school agriculture, in total, as well as by field of study.

During the three-year study period, the number of four-year graduates with 4-H, high school agriculture, and FFA experience has steadily decreased.

The majority of Illinois four-year graduates receiving degrees in 1977 (89.6 percent) received the B.S. degree (Table 41). The highest percentage of B.S. degree graduates came from the areas of agriculture mechanics, science, agribusiness, and general agriculture. M.S. degrees were granted primarily by the fields of "other," plant agriculture, economics, and natural resources. These data are typical for the three-year study period.

Relative to employment status, 13.4 percent of the Illinois four-year agriculture graduates of 1977 continued their formal education (Table 42). Twenty percent or more of the graduates from "other," natural resources, plant agriculture, and animal agriculture continued as students. The field of "other" had 33.3 percent continuing as students. All other study areas had less than 20 percent of their graduates continuing as students.

More than one-half (55.1 percent) of the four-year graduates accepted salaried positions. The highest percentage accepting salaried positions was from education and communication (74.2 percent). Most of these graduates went into teaching.

Few graduates (6.3 percent) became partners in a business, and they came primarily from the fields of agriculture economics, "other," agriculture mechanics, and general agriculture. Those graduates that became self-employed (11.0 percent) came primarily from the fields of general agriculture, agriculture mechanics, agriculture science, education and communication, and agribusiness.

TABLE 41.--Degrees Granted, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365)

| Field of Study | B.S. | M.S. |
|---|---|---|
| | Percent | |
| Ag. Bus. | 95.3 | 4.7 |
| Ag. Econ. | 77.3 | 22.7 |
| Ag. Science | 97.1 | 2.9 |
| Animal Ag. | 87.5 | 12.5 |
| Edu. & Comm. | 90.3 | 9.7 |
| Ag. Mech. | 100.0 | 0.0 |
| Food & Nut. | 0.0 | 0.0 |
| Gen. Agr. | 96.7 | 3.3 |
| Horticulture | 100.0 | 0.0 |
| Natural Res. | 79.6 | 20.4 |
| Plant Agr. | 73.1 | 26.9 |
| Other | 66.7 | 33.3 |
| Total | 89.6 | 10.4 |

Some graduates (8.8 percent) had no career employment at time of reporting. These came primarily from natural resources, agribusiness, animal agriculture, agriculture economics, and horticulture. "Other" types of employment accounted for 5.4 percent of the graduates. These came primarily from the fields of horticulture and agriculture mechanics.

For the three-year study period, these data are typically varied. Farming was the type of employment reported by 26 percent of the

TABLE 42.--Employment Status, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365)

| Field of Study | Student | Salaried | Partner | Self-Employed | No Career Employment | Other |
|---|---|---|---|---|---|---|
| | | | Percent | | | |
| Ag. Bus. | 2.3 | 72.1 | 0.0 | 9.3 | 11.6 | 4.7 |
| Ag. Econ. | 13.6 | 54.5 | 18.2 | 4.5 | 9.1 | 0.0 |
| Ag. Science | 14.3 | 62.9 | 2.9 | 11.4 | 2.9 | 5.7 |
| Animal Ag. | 20.8 | 45.8 | 8.3 | 8.3 | 10.4 | 6.3 |
| Edu. & Comm. | 3.2 | 74.2 | 9.7 | 9.7 | 3.2 | 0.0 |
| Ag. Mech. | 0.0 | 57.1 | 14.3 | 14.3 | 0.0 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 6.7 | 43.3 | 10.0 | 30.0 | 5.0 | 5.0 |
| Horticulture | 13.2 | 52.6 | 5.3 | 7.9 | 7.9 | 13.2 |
| Natural Res. | 24.5 | 49.0 | 0.0 | 0.0 | 20.4 | 6.1 |
| Plant Agr. | 23.1 | 53.8 | 3.8 | 7.7 | 7.7 | 3.8 |
| Other | 33.3 | 50.0 | 16.7 | 0.0 | 0.0 | 0.0 |
| Total | 13.4 | 55.1 | 6.3 | 11.0 | 8.8 | 5.4 |

Illinois four-year agriculture graduates of 1977 (Table 43). The highest percentage of graduates from any program entering farming was 58.2 percent, coming from general agriculture. More than 40 percent of the graduates from both animal agriculture and agriculture mechanics entered farming. None of the graduates of natural resources reported farming as their type of employment.

Approximately one-fifth (20.8 percent) reported agribusiness as their type of employment. Logically, 42.9 percent of the agribusiness majors reported this type, and 47.3 percent of the agriculture economics majors

TABLE 43.--Type of Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=308)

| Field of Study | Farming | Ag. Business | Ag. Related | Non-Ag. |
|---|---|---|---|---|
| | | Percent | | |
| Ag. Bus. | 16.7 | 42.9 | 19.0 | 21.4 |
| Ag. Econ. | 21.1 | 47.3 | 26.3 | 5.3 |
| Ag. Science | 26.7 | 30.0 | 33.3 | 10.0 |
| Animal Ag. | 40.5 | 21.6 | 21.6 | 16.2 |
| Edu. & Comm. | 16.7 | 10.0 | 66.7 | 6.6 |
| Ag. Mech. | 42.9 | 14.3 | 28.6 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 58.2 | 9.1 | 18.2 | 14.5 |
| Horticulture | 9.4 | 12.5 | 56.3 | 21.9 |
| Natural Res. | 0.0 | 3.0 | 42.4 | 54.6 |
| Plant Agr. | 10.5 | 26.3 | 42.1 | 21.1 |
| Other | 25.0 | 25.0 | 25.0 | 25.0 |
| Total | 26.0 | 20.8 | 33.8 | 19.4 |

reported agribusiness. Almost one-third (30 percent) of the science graduates reported their field as agribusiness, and 25 percent of the "other" graduates reported agribusiness as their type of employment.

The highest percentage of all 1977 graduates reported "agriculture related" as type of employment (33.8 percent). Some graduates from all programs reported "agriculture related" as their type of employment with horticulture having the highest percentage with 56.3 percent.

Of the total population, 19.4 percent reported non-agriculture type of employment. These graduates came primarily from the natural resource, "other," horticulture, agribusiness, and plant agriculture programs.

During the three-year study period, the number of graduates entering farming has steadily decreased. The number entering agribusiness, agriculture related, and non-agriculture has increased but has varied by area from year to year.

Approximately one-fourth (26.1 percent) of the Illinois four-year agriculture graduates of 1977 reported farming as the type of employer (Table 44). The fields having the highest percentage of graduates entering farming included general agriculture (60 percent), animal agriculture (43.2 percent), agriculture mechanics (42.9 percent), and agriculture science (26.7 percent).

The farm supply type of employer provided positions for 15.4 percent of all graduates. Agriculture science and agribusiness had the highest percentage of graduates enter the farm supply area, 30 and 28.6 percent respectively. Animal agriculture and plant agriculture each had over 20 percent of their graduates entering farm supply. A farm supply type of employment provided employment for less than 20 percent of the graduates from each of the remaining fields of study.

"Other" type of employment was reported by 27.4 percent of the four-year graduates of 1977, 11.1 percent by "other, agriculture related" and 16.3 percent by "other, non-agriculture." Over 60 percent of the horticulture and natural resource graduates reported "other." The remaining respondees came primarily from the areas of plant agriculture, agriculture mechanics, agribusiness, "other," and general agriculture. Three types

TABLE 44.--Type of Employer, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=306)

| Field of Study | Fmg. | Farm Spy. | Ag. Svc. | Ag. Mgt. | Ag. Fin. | Ag. Ed. H.S. | Ag. Ed. Col. | Gov't | Food | Other Ag. | Other Non-Ag. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Percent | | | | | |
| Ag. Bus. | 14.3 | 28.6 | 4.8 | 2.4 | 19.0 | 0.0 | 0.0 | 2.4 | 2.4 | 4.8 | 19.0 |
| Ag. Econ. | 22.2 | 16.7 | 11.1 | 0.0 | 27.8 | 5.6 | 0.0 | 5.6 | 5.6 | 0.0 | 5.6 |
| Ag. Science | 26.7 | 30.0 | 3.3 | 3.3 | 3.3 | 0.0 | 10.0 | 13.3 | 0.0 | 0.0 | 10.0 |
| Animal Ag. | 43.2 | 21.6 | 5.4 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 5.4 | 2.7 | 16.2 |
| Edu. & Comm. | 13.3 | 3.3 | 0.0 | 3.3 | 0.0 | 73.3 | 0.0 | 0.0 | 0.0 | 3.3 | 3.3 |
| Ag. Mech. | 42.9 | 14.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 14.3 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 60.0 | 12.7 | 0.0 | 0.0 | 3.6 | 1.8 | 0.0 | 0.0 | 1.8 | 10.9 | 9.1 |
| Horticulture | 9.7 | 6.5 | 3.2 | 3.2 | 0.0 | 6.5 | 3.2 | 6.5 | 0.0 | 45.2 | 16.1 |
| Natural Res. | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.4 | 0.0 | 15.2 | 45.5 |
| Plant Agr. | 10.5 | 21.1 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 | 15.8 | 0.0 | 21.1 | 21.1 |
| Other | 25.0 | 0.0 | 25.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 0.0 | 0.0 | 25.0 |
| Total | 26.1 | 15.4 | 3.3 | 1.3 | 5.2 | 9.2 | 2.0 | 8.5 | 1.6 | 11.1 | 16.3 |

of employment, farming, farm supply, and "other" provided employment for 68.9 percent of the Illinois agriculture graduates of 1977.

During the three-year study period, the type of employer has remained fairly constant, except for a decrease in farming and an increase in "other."

Almost three-fourths (71.6 percent) of the Illinois four-year agriculture graduates of 1977 indicated a "very close" or "close" relationship between their field of study taken in college and present employment (Table 45),

Graduates of education and communication reported the greatest percentages of "very close" and "close" relationships, and those from natural resources the least. Over one-tenth (13.4 percent) of the total population reported "not related."

TABLE 45.--Evaluation by Graduates of Relationship Between Employment and Field of Study Taken, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=306)

| Field of Study | Very Closely | Closely | Somewhat | Not Related |
|---|---|---|---|---|
| | | Percent | | |
| Ag. Bus. | 38.1 | 23.6 | 21.4 | 11.9 |
| Ag. Econ. | 61.1 | 22.2 | 11.1 | 5.6 |
| Ag. Science | 30.0 | 43.4 | 13.3 | 13.3 |
| Animal Ag. | 45.0 | 27.0 | 16.2 | 10.8 |
| Edu. & Comm. | 76.7 | 13.3 | 6.7 | 3.3 |
| Ag. Mech. | 14.3 | 42.9 | 28.6 | 14.3 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 43.6 | 32.7 | 14.6 | 9.1 |
| Horticulture | 48.4 | 16.1 | 22.6 | 12.9 |
| Natural Res. | 33.3 | 15.2 | 15.2 | 36.3 |
| Plant Agr. | 63.2 | 15.8 | 5.3 | 15.8 |
| Other | 50.0 | 25.0 | 0.0 | 25.0 |
| Total | 46.1 | 25.5 | 15.0 | 13.4 |

For the three-year study period, these data are typical.

Almost two-thirds (63.2 percent) of the Illinois four-year agriculture graduates of 1977 had an annual income of $7,000 to $13,000 (Table 46). Using this range as an index, 17.7 percent of the graduates were below the index and 19.1 percent above. Over 90 percent of the graduates of education, agribusiness, and agriculture science were at or above the index. Over 80 percent of the general agriculture, plant agriculture, and animal agriculture graduates were at or above the index. Over 70 percent of the natural resource, agriculture economics, and agriculture mechanics graduates were at or above the index. Fifty percent or more of the horticulture and "other" graduates were below the index.

TABLE 46.--Annual Income, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=305)

| Field of Study | Thousand ($) -5 | 5 -7 | 7 -9 | 9 -11 | 11 -13 | 13 -15 | 15 -17 | 17 -19 | 19 -21 | 23 -25 | 25 -27 | 31+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | | | | | |
| Ag. Bus. | 0.0 | 9.4 | 7.1 | 26.2 | 31.0 | 16.7 | 7.1 | 3.1 | 4.8 | 0.0 | 0.0 | 0.0 |
| Ag. Econ. | 16.7 | 11.1 | 0.0 | 5.6 | 38.9 | 22.2 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ag. Science | 3.3 | 6.7 | 16.7 | 26.7 | 20.0 | 10.0 | 6.7 | 3.3 | 6.7 | 0.0 | 0.0 | 0.0 |
| Animal Ag. | 8.1 | 8.1 | 21.6 | 24.3 | 32.4 | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Edu. & Comm. | 0.0 | 3.3 | 13.3 | 30.0 | 40.0 | 10.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ag. Mech. | 0.0 | 28.6 | 0.0 | 28.6 | 28.6 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 50.0 | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 7.3 | 5.5 | 10.9 | 25.5 | 21.8 | 20.0 | 3.6 | 1.8 | 1.8 | 1.8 | 0.0 | 0.0 |
| Horticulture | 32.3 | 12.9 | 19.4 | 19.4 | 9.7 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Natural Res. | 9.4 | 12.5 | 12.5 | 37.5 | 15.6 | 6.3 | 3.1 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 |
| Plant Agr. | 10.5 | 10.5 | 5.3 | 31.6 | 21.1 | 5.3 | 10.5 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 |
| Other | 0.0 | 50.0 | 0.0 | 25.0 | 25.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 9.5 | 8.2 | 12.1 | 25.9 | 25.2 | 11.4 | 4.2 | 1.3 | 1.0 | 0.7 | 0.3 | 0.3 |

Although salaries have increased during the three-year study period for many graduates, these data are typical.

Less than one-fifth (18.4 percent) of the Illinois four-year graduates of 1977 had secondary employment (Table 47). Graduates from all programs,

TABLE 47.--Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=365)

| Field of Study | Yes | No |
|---|---|---|
| | Percent | |
| Ag. Bus. | 14.0 | 86.0 |
| Ag. Econ. | 4.5 | 95.5 |
| Ag. Science | 22.9 | 77.1 |
| Animal Ag | 8.3 | 91.7 |
| Edu. & Comm. | 45.2 | 54.8 |
| Ag. Mech. | 28.6 | 71.4 |
| Food & Nut. | 0.0 | 0.0 |
| Gen. Agr. | 31.7 | 68.3 |
| Horticulture | 15.8 | 84.2 |
| Natural Res. | 4.1 | 95.9 |
| Plant Agr. | 15.4 | 84.6 |
| Other | 16.7 | 83.3 |
| Total | 18.4 | 81.6 |

except those of food and nutrition with no graduates, reported secondary employment. The highest percentage of graduates with secondary employment came from education and communication (45.2 percent), followed in order by general

agriculture (31.7 percent), agriculture mechanics (28.6 percent), agriculture science (22.9 percent), "other" (16.7 percent), horticulture (15.8 percent), plant agriculture (15.4 percent), agribusiness (14 percent), animal agriculture (8.3 percent), agriculture economics (4.5 percent), and natural resources (4.1 percent).

With one exception, these data are typical for the three-year study period--agriculture teachers are presently employed fewer months than formerly, allowing them time for secondary employment.

Illinois four-year graduates of 1977 from all fields except food and nutrition reported secondary employment (Table 48). Over one-half had second-

TABLE 48.--Annual Earnings of the Graduates Having Secondary Employment, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=66)

| Field of Study | Thousand ($) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | -1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7+ |
| | Percent | | | | | | | |
| Ag. Bus. | 16.7 | 0.0 | 16.7 | 0.0 | 33.3 | 16.7 | 0.0 | 16.7 |
| Ag. Econ. | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ag. Science | 12.5 | 12.5 | 12.5 | 12.5 | 0.0 | 0.0 | 12.5 | 37.5 |
| Animal Ag. | 50.0 | 0.0 | 0.0 | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 |
| Edu. & Comm. | 21.4 | 28.6 | 28.6 | 14.3 | 7.1 | 0.0 | 0.0 | 0.0 |
| Ag. Mech. | 0.0 | 0.0 | 50.0 | 0.0 | 0.0 | 50.0 | 0.0 | 0.0 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 31.6 | 26.3 | 10.5 | 5.3 | 5.3 | 5.3 | 15.8 | 0.0 |
| Horticulture | 0.0 | 83.3 | 0.0 | 16.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Natural Res. | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Plant Agr. | 25.0 | 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 |
| Other | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 22.7 | 28.8 | 13.6 | 7.6 | 9.1 | 4.5 | 6.1 | 7.6 |

ary employment earnings of $2,000 or less. Approximately one-third (30.3 percent) had earnings of $2,000 to $5,000, and 18.2 percent had secondary employment earnings of $5,000 to $7,000 plus.

During the three-year study period, there has been a steady increase in the number of graduates having secondary employment earnings in the #2,000 and $3,000 range.

More than one-half (58.4 percent) of the Illinois four-year agriculture graduates of 1977 evaluated their college agriculture programs as "above average" or "superior" (Table 49). Less than one-fifth (17.7 percent) of the

TABLE 49.--Student Evaluation of Agriculture Programs, by Field of Study, Reporting Illinois Four-Year College Agriculture Graduates, 1977 (N=305)

| Field of Study | Superior | Above Average | Average | Below Average | Inadequate |
|---|---|---|---|---|---|
| | | | Percent | | |
| Ag. Bus. | 21.4 | 31.0 | 35.7 | 9.5 | 2.4 |
| Ag. Econ. | 44.4 | 33.3 | 16.7 | 0.0 | 5.6 |
| Ag. Science | 20.0 | 46.7 | 26.7 | 0.0 | 6.7 |
| Animal Ag. | 2.7 | 62.2 | 24.3 | 5.4 | 5.4 |
| Edu. & Comm. | 40.0 | 43.3 | 13.3 | 3.3 | 0.0 |
| Ag. Mech. | 0.0 | 71.4 | 28.6 | 0.0 | 0.0 |
| Food & Nut. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gen. Agr. | 3.6 | 41.8 | 47.3 | 7.3 | 0.0 |
| Horticulture | 19.4 | 32.3 | 35.5 | 6.5 | 6.5 |
| Natural Res. | 12.5 | 31.3 | 40.6 | 9.4 | 6.3 |
| Plant Agr. | 31.6 | 21.1 | 42.1 | 5.3 | 0.0 |
| Other | 0.0 | 75.0 | 0.0 | 25.0 | 0.0 |
| Total | 17.7 | 40.7 | 32.5 | 5.9 | 3.3 |

population evaluated the programs "superior," and 40.7 percent as "above average." Almost one-third (32.5 percent) evaluated their program "average," and 9.2 percent of the population evaluated their programs as "below average" or "inadequate."

During the three-year study period, over 90 percent of all graduates each year have evaluated the programs received "average" to "superior"--approximately 33 percent "average," 40 percent "above average," and 20 percent "superior."

# APPENDIX A

One-Page Questionnaire that was Completed by Illinois Agriculture College Personnel for Their Graduates as a Whole, 1977

Name of College:_____ Person Reporting:_____

ILLINOIS COLLEGES AND UNIVERSITIES OFFERING AG DEGREES
SALARY AND PLACEMENT QUESTIONNAIRE FOR 1977

FOR ALL OF THE FOLLOWING QUESTIONS, CONSIDER ONLY THOSE GRADUATES IN AREAS WHICH PERTAIN TO AGRICULTURE, HORTICULTURE, AND/OR AGRIBUSINESS.

1. How many Two-year degrees did you award in calendar year 1977?_____
   B.S. degrees?_____ M.S. degrees?_____ Ph.D. degrees?_____

2. How many of these 1977 graduates went into the following fields of work:

| | TWO-YEAR | B.S. | M.S. | Ph.D. |
|---|---|---|---|---|
| a. B.S. study, graduate study, or professional schooling such as law, medicine? | ___ | ___ | ___ | ___ |
| b. The field of education or extension? | ___ | ___ | ___ | ___ |
| (1) Education (teaching or research at any level) | ___ | ___ | ___ | ___ |
| (2) Agr. Extension | ___ | ___ | ___ | ___ |
| c. The field of farming and professional farm management? | ___ | ___ | ___ | ___ |
| (1) Farming | ___ | ___ | ___ | ___ |
| (2) Professional Farm Management | ___ | ___ | ___ | ___ |
| d. The field of private industry? (Under this heading place all who entered commercial work.) | ___ | ___ | ___ | ___ |
| e. The field of government work: federal, state, county, or city? | ___ | ___ | ___ | ___ |
| f. Military? | ___ | ___ | ___ | ___ |
| g. Not placed? | ___ | ___ | ___ | ___ |
| h. Others? | ___ | ___ | ___ | ___ |

FOR QUESTIONS 3 AND 4 DO NOT INCLUDE SALARIES OF PERSONS GOING INTO THE PEACE CORPS, OTHER SIMILAR ORGANIZATIONS, AND MILITARY SERVICE.

3. Indicate average starting monthly salary for those 1977 Two-year graduates:____
   B.S. graduates:_____ M.S. graduates:_____ Ph.D. graduates_____

4. What is your estimated starting monthly salary for the Two-year grads this spring (1978)?_____ B.S. grads:_____ M.S. grads:_____ Ph.D. grads:_____

5. What fields of work in 1977 have shown the strongest demand for Two-year graduates?_____: B.S. graduates?_____
   (Identify by curriculi.) (Identify by curriculi.)

6. In which curricula or courses of study, if any, have you had a surplus of Two-year graduates?_____: B.S. graduates?_____:
   M.S. and Ph.D. graduates?_____.

7. What is your estimate of trends in employment opportunities for Two-year or B.S. degree graduates in agriculture in 1978 as compared to 1977 graduates? (Circle one.)

| much better for 1978 | slightly better for 1978 | about the same for 1978 | slightly less for 1978 | much less for 1978 |
|---|---|---|---|---|

# APPENDIX B

Three-Page Questionnaire that was Completed by Individual Graduates, Illinois Agriculture Colleges, 1977

TO: FORMER AG STUDENT (1977 GRADUATE)
FROM: ILLINOIS INSTITUTIONS OFFERING HIGHER EDUCATION IN AGRICULTURE
RE: THE FOLLOWING INFORMATION QUESTIONNAIRE ON PAST STUDENTS OF ILLINOIS HIGHER EDUCATION AGRICULTURE PROGRAMS

A staff member of the community college or university you attended has provided you with this confidential questionnaire. Please complete and return to him as soon as possible. Your data will be coded and assembled with data from former students of your school plus other Illinois agriculture schools. Your individual data will not be identified in any manner.

Your cooperation in completing and returning this questionnaire will help provide higher education planners in agriculture, and those concerned with placement of agriculture graduates, a sound basis for counseling and advising future young people interested in agriculture.

---

1. NAME OF COMMUNITY COLLEGE OR UNIVERSITY (If no degree or certificate, the last one attended. If a degree or certificate, from where received):_____

2. YOUR NAME:_____ SOCIAL SECURITY NO:___ __ ____

3. ADDRESS:_____ TODAY'S DATE:____, 19___
   St. or RFD City State Zip

4. AGE TO NEAREST BIRTHDAY:_____ MALE... 1 FEMALE... 2 (Circle one number)

5. BACKGROUND: Rural... 1 Small Town.. 2 Urban... 3 (Circle one number)

6. VOCATIONAL EDUCATION AND EXPERIENCES:

   A. Have you had 4-H Club experience? Yes.. 1 No.. 2 (Circle one number)

   B. Have you had vo-ag or ag occupations courses in high school?
   Yes... 1 No... 2 (Circle one number) If YES, how many years?____

   C. Have you had FFA experience?
   Yes... 1 No... 2 (Circle one number)

   D. Have you had other vocational organization experience?
   Yes... 1 No... 2 (Circle one number)

7. ARE YOU A GRADUATE OF A COMMUNITY COLLEGE?
   Yes... 1 No... 2 (Circle one number)

   A. If YES, circle the one number below that is most relevant to your specialization:

| | | | |
|---|---|---|---|
| Ag Production..... | 01 | Ag Resources..... | 06 |
| Ag Supply and Services.... | 02 | Forestry..... | 07 |
| Ag Mechanics..... | 03 | Transfer..... | 08 |
| Ag Products..... | 04 | Other (Specify)_____ | 09 |
| Ornamental Horticulture... | 05 | _____ | |

B. Degree Earned: Associate... 1 Certificate... 2 None... 3 (Circle one)

C. Year of Graduation:_____

8. ARE YOU A GRADUATE OF A FOUR-YEAR INSTITUTION?
Yes... 1 No... 2 (Circle one)

A. If YES, circle the one number below that is most relevant to your specialization:

| | | | |
|---|---|---|---|
| Agri-Business..... | 01 | Food & Nutritional Sciences.... | 07 |
| Agricultural Economics..... | 02 | General Agriculture..... | 08 |
| Agricultural Science..... | 03 | Horticulture..... | 09 |
| Animal Agriculture..... | 04 | Natural Resources & Forestry... | 10 |
| Ag Edu. & Communications... | 05 | Plant Agriculture..... | 11 |
| Ag Engineering or Ag Mechanics..... | 06 | Other (Specify)_____ | 12 |

B. Highest Degree Earned (Circle one number below):

| | | | |
|---|---|---|---|
| BS..... | 01 | Ph.D, Ed.D..... | 04 |
| MS, MA, Ed.M, MF..... | 02 | DVM..... | 05 |
| MBA..... | 03 | Other (Specify)_____ | 06 |

C. Year of Graduation:_____

9. EMPLOYMENT STATUS (Circle one number below):

| | | | |
|---|---|---|---|
| Student..... | 01 | No Career Employment as of this date..... | 05 |
| Salaried..... | 02 | | |
| Partner in Business..... | 03 | Other (Specify)_____ | 06 |
| Self-Employed..... | 04 | | |

NOTE: IF YOU CHECKED "01" IMMEDIATELY ABOVE, DO NOT COMPLETE THE REMAINING QUESTIONS

10. TYPE OF EMPLOYMENT (Circle one number below):

Farming... 1 Ag Business... 2 Ag Related... 3 Non-Agriculture... 4

11. INFORMATION OF PRESENT EMPLOYMENT:

A. Name of Employer (Including Self):_____

B. Business Address:_____

C. Type of Principal Employer (Circle one number below):

| | | | |
|---|---|---|---|
| Farming | 01 | Agr. Finance & Lending | 05 |
| Farm Supplies (Feed, Seed, Plant Food, Ag. Chem., Equip., etc.) | 02 | Education (Elem., Sec.) | 06 |
| Services (Farm Org., Ins., Comm., Vet., Trans., etc.) | 03 | Education, Higher (Comm. Coll., Coll. or University) | 07 |
| Management (Bank, Prof. Farm Mgt., etc.) | 04 | Govt. (U.S., State, etc.) | 08 |
| | | Food Manu. & Distribution | 09 |
| | | Other: | |
| | | Ag Related | 10 |
| | | Non-Ag Related | 11 |

12. HOW CLOSELY IS YOUR PRESENT WORK RELATED TO YOUR COLLEGE MAJOR? (Circle one)

Very Closely... 1 Closely... 2 Somewhat... 3 Not Related... 4

13. INCOME INFORMATION ON FIRST MAJOR EMPLOYMENT SINCE LEAVING COLLEGE (Circle one number below. Include fringe benefits. If self-employed, estimate earnings and fringe benefits for a total):

| | | | | | |
|---|---|---|---|---|---|
| Less than $5,000 | 01 | 13,000-14,999 | 06 | 23,000-24,999 | 11 |
| 5,000- 6,999 | 02 | 15,000-16,999 | 07 | 25,000-26,999 | 12 |
| 7,000- 8,999 | 03 | 17,000-18,999 | 08 | 27,000-28,999 | 13 |
| 9,000-10,999 | 04 | 19,000-20,999 | 09 | 29,000-30,999 | 14 |
| 11,000-12,999 | 05 | 21,000-22,999 | 10 | 31,000 plus | 15 |

14. DO YOU HAVE SECONDARY EMPLOYMENT INCOME? Yes... 1 No... 2 (Circle one)

A. If YES, what is the nature of this work?_____

B. Earnings per year from this secondary work (Circle one number below):

| | | | |
|---|---|---|---|
| Less than 1,000 | 01 | 4,000-4,999 | 05 |
| 1,000-1,999 | 02 | 5,000-5,999 | 06 |
| 2,000-2,999 | 03 | 6,000-6,999 | 07 |
| 3,000-3,999 | 04 | 7,000 plus | 08 |

15. EVALUATE YOUR HIGHER EDUCATION RELATIVE TO ACHIEVING YOUR PRESENT EMPLOYMENT STATUS AND POTENTIAL (Circle one number below):

| | | | |
|---|---|---|---|
| Superior | 01 | Below Average | 04 |
| Above Average | 02 | Inadequate | 05 |
| Average | 03 | | |

16. COMMENTS (Optional, but encouraged).